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ANNUAL FACILITIES REPORT FOR 2021

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

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Capital Plans

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Section A

CAPITAL PLANS

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

1. Five-Year Capital Plan for State Funds, Including Capital Request for FY 2023



	State-Funded Project	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	5-Year State Request	Other, Private Funds	Total
SUI	Pentacrest Modernization Ph. I, MacLean Hall	\$ 2,800	\$ 12,400	\$ 12,775			\$ 27,975	\$ -	\$ 27,975
ISU	LeBaron/MacKay Complex	-	2,000	5,000	9,900	2,000	18,900	35,500	54,400
ISU	Veterinary Diagnostic Laboratory Addition	15,700	17,600	16,500	11,000	-	60,800	3,500	64,300
IPR	Replace Transmission Equipment at WOI-FM and KSUI-FM	520	675	-	-	-	1,195	-	1,195
ISD	Girls Dormitory HVAC / Electrical	5,180	-	-	-	-	5,180	-	5,180
SUI	Pentacrest Modernization Ph. II, Jessup Hall		3,000	13,250	13,500		29,750	-	29,750
ISD	Giangreco Hall - Exterior Rehabilitation	-	6,687	-	-	-	6,687	-	6,687
SUI	Pentacrest Modernization Ph. III, Macbride Hall			3,500	14,750	17,275	35,525	-	35,525
IPR	Equipment for ISU, UNI and UI licensed properties	-	-	400	250	185	835	-	835
ISD	Giangreco Hall - Boys Dorm HVAC	-	-	3,461	-	-	3,461	-	3,461
UNI	McCollum Science Hall Renovation	-	-	-	14,000	26,000	40,000	50,000 ¹	90,000
All	Deferred maintenance, fire & environmental safety, campus security, regulatory compliance and energy conservation	20,000	20,000	20,000	20,000	20,000	100,000	-	100,000
Total =		\$ 44,200	\$ 62,362	\$ 74,886	\$ 83,400	\$ 65,460	\$ 330,308	\$ 89,000	\$ 419,308

1 This \$50,000,000 is a UNI request for three years of additional state funds for the McCollum Science Hall Renovation for FY 2028, FY 2029 and FY2030 for a project total of \$90,000,000.

The proposed Capital Request for FY 2023 is \$44.2 million, up 47% from last year's \$30 million request, which was specifically for Regent deferred maintenance.

The entire proposed Five-Year Capital Plan for \$419 million, up 6% from last year, consists of \$330 million in State Appropriations and/or Academic Building Revenue Bonds, and \$89 million in gifts and University Funds. Of the \$330 million in state funds, \$100 million is proposed 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 Iowa Department of Management by October 1.

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

Board approval of these capital plans is not Board approval for each project listed. Per Board’s *Policy Manual* §2.3, those capital projects are required to be approved individually by the Board.

2. Quick Facts

Five-Year Capital Plans for State Funds

• FY 2023	= \$ 44 million
• Average, over 22 years	= 74 million
down 44% from 22-year average	= (\$ 30 million)
• FY 2023 – FY 2027	= \$ 419 million
• Average, over 22 years	= 472 million
down 11% from 22-year average	= (\$ 53 million)

Five-Year Capital Plans for UIHC

• FY 2023	= \$ 123 million
• last year	= 6 million
difference from last year	= \$ 117 million*
• FY 2023- FY 2027	= \$ 521 million
• last year	= 187 million
difference from last year	= \$ 334 million*

* increase due to the new UIHC at Forevergreen Road project

Five-Year Capital Plans for Other Funds

• FY 2023	= \$ 153 million
• last year	= 148 million
up 3% from last year	= \$ 5 million
• FY 2023- FY 2027	= \$ 752 million
• last year	= 882 million
down 15% from last year	= (\$130 million)

3. State-Funded Project Descriptions

a. Pentacrest Renewal and Modernization Phase 1 – MacLean Hall University of Iowa

\$8,500,000 in Phase 1 MacLean Hall deferred maintenance would be eliminated through this project.
(\$7.8M = Phase 2, Jessup Hall deferred maintenance, \$12M = Phase 3, MacBride Hall deferred maintenance)

	Proposed <u>Appropriations</u>	Gifts & Other <u>Funds</u>	<u>Total</u>
FY 2023	\$ 2,800,000	-	\$ 2,800,000
FY 2024	12,400,000	-	12,400,000
FY 2025	12,775,000	-	12,775,000
FY 2026	-	-	-
FY 2027	-	-	-
Total	\$27,975,000	\$0	\$27,975,000

Project Schedule

Planning and Design	12 months
Bidding	2 months
Construction	24 months
Occupancy	1 months
Total	39 months

The University of Iowa Pentacrest is the historic and symbolic heart of the institution and the birthplace of both the state of Iowa and the University of Iowa. It is the home of five major and historic UI buildings - Old Capitol (1842), Schaeffer Hall (1902), Macbride Hall (1908), MacLean Hall (1912) and Jessup Hall (1924). In alignment with the university's priorities and in best-serving the students who attend the university, dedicating the Pentacrest buildings for educational, academic and student-based purposes is paramount. The renovation of MacLean Hall is the first of three renewal projects, which would address long-standing operational and programmatic obsolescence in facilities 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 consolidates student/academic functions at the very core of the UI campus.

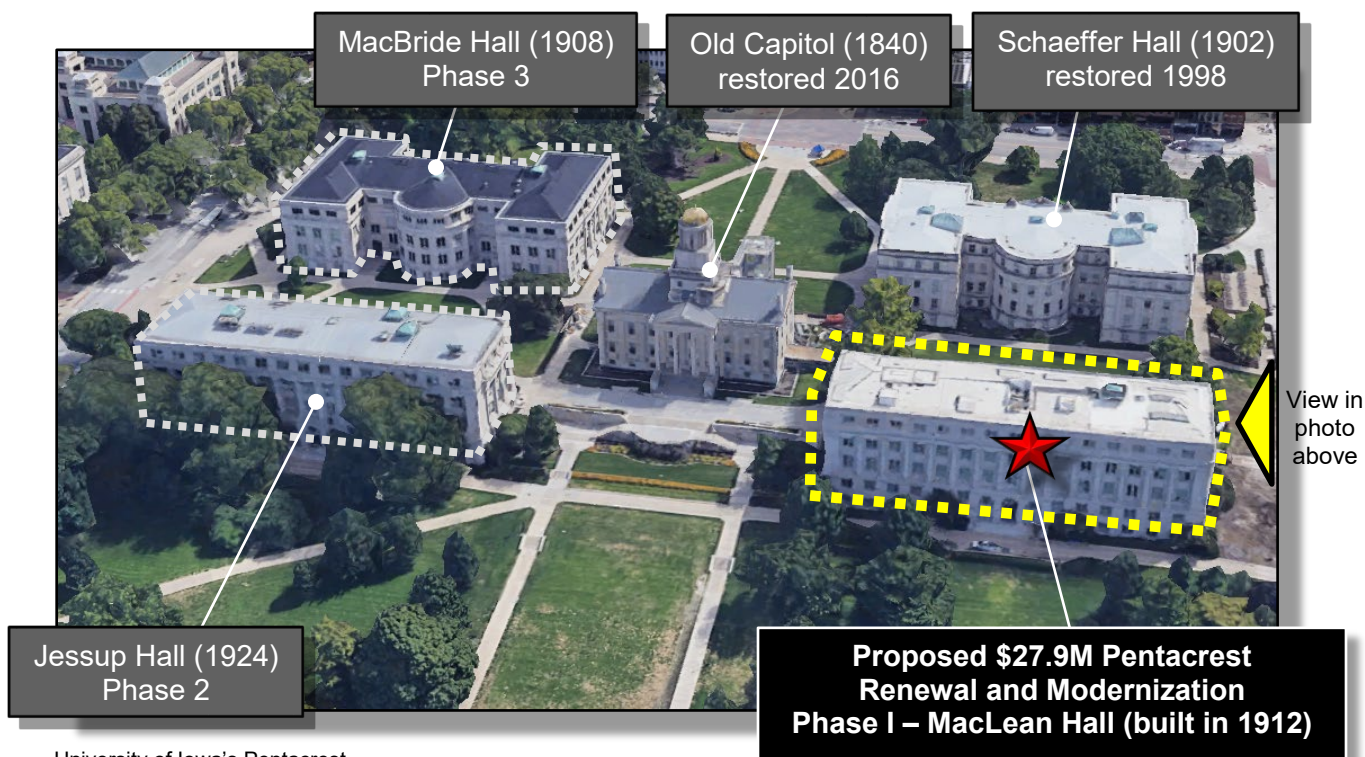
The Old Capitol, renovated five years ago, and Schaeffer Hall, renovated 23 years ago, are in good operational condition and are not part of the overall, three-phase Pentacrest Renewal and Modernization. In 2007 the UI stated the remaining (3) Pentacrest buildings as its top priority ask for State support. The Legislature authorized \$13 million in Academic Revenue Bonds for the initial phase to renovate the three remaining Pentacrest structures. However in the aftermath of the 2008 flood, both the State and the University agreed to postpone this request, in order to deploy funds toward the desperately needed UI flood recovery projects. In 2019, the original state-funding request was re-submitted for these critically needed building updates, focused on UI student success.

As Phase 1, the MacLean Hall renovation would include the correction of fire safety deficiencies, improved access for the mobility impaired, new power and communications wiring, remodeling to meet the functional needs of occupants, classroom upgrades to current university and industry

standards, restroom remodeling, improved lighting and exterior surface refurbishing. The details of the remodeling would be compatible with the historical character of the building and would be targeted at academic and student-centric priorities. The MacLean Hall renovation would also replace numerous inadequate and inefficient heating, ventilation, and air conditioning (HVAC) systems. HVAC would be connected to the UI's campus-wide chilled water system.



University of Iowa's MacLean Hall, built in 1912. Photo is roughly 1955.



University of Iowa's Pentacrest,
Looking east

As an important part of the project, and in coordination with planned renewal of Jessup and Macbride Halls, locating student and academic spaces and programs within the buildings, requires relocation of current non-academic units. As part of a carefully planned space use strategy, the UI is advancing several projects, independent of State appropriations, to make the Pentacrest space available, solely for academic programs.

In partnership with this request for state funds, the UI has expended, or would expend, approximately \$30M on required/enabling renovations in University Capitol Center (UCC/Mall), Calvin Hall, Jefferson Building, and other UI spaces. The result of this partnership would modernize multiple historic and important UI buildings, centralize student-oriented functions to the core of the UI campus, continue to improve space use efficiency, and considerably reduce pressing campus deferred maintenance deficits.

MacLean Hall currently has a deferred maintenance backlog of \$8.5M that is expected to grow to \$10M within the next five years. This renovation would eliminate all of the deferred maintenance and renewal backlog within the building.

MacLean Hall is home to the Computer Science and Math departments. Computer Science has approximately 800 undergraduate majors and delivers close to 13,000 student credit hours per year. They have quickly outgrown their space and have faculty located in multiple buildings across campus. Renovations to the building would relocate the Math department to an adjacent building and allow for Computer Science expansion. This would provide better collaboration within the department, and as a fast-growing professional target and need for students within the state of Iowa, improvements to MacLean would directly address the state's priority of providing degrees within fields of high professional demand.

The Old Capital on the University of Iowa Pentacrest is the first State of Iowa Capitol.

b. 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 2023		\$7,000,000	\$2,200,000	\$9,200,000
FY 2024	2,000,000	9,900,000	4,800,000	16,700,000
FY 2025	5,000,000	4,600,000	7,000,000	16,600,000
FY 2026	9,900,000	-	-	9,900,000
FY 2027	2,000,000	-	-	2,000,000
Total	\$18,900,000	\$21,500,000	\$14,000,000	\$54,400,000

For ISU's College of Human Sciences, this project would be done in two phases:

Phase 1: Funded by Gifts (\$21.5M) and University Funds (\$14M)

- Demolish 49,000 gross square feet (gsf) of LeBaron Hall (80% of its 61,519 gsf).
- Renovate 9,400 gsf of corridor shared by LeBaron Hall, MacKay Hall and Human Nutritional Sciences Building (HNSB).
- Build 50,000 new gsf, replacing the demolished 49,000 gsf.

Phase 2: Funded by State Appropriations (\$18.9M)

- Build 20,000 additional gsf
- Renovate 5,000 gsf of MacKay Hall (6% of its 86,648 gsf).
- Total = 84,400 gsf = 70,000 new gsf + 14,400 renovated gsf

Annual Operating Expenses

Operations and Maintenance	\$ 69,000
Utilities	104,000
Other (Grounds, Mail, Environmental Health & Safety, Department of Public Safety)	19,000
Annual Capital Renewal	152,000
Total	\$344,000

Annual Operating Expenses: Source of Funds

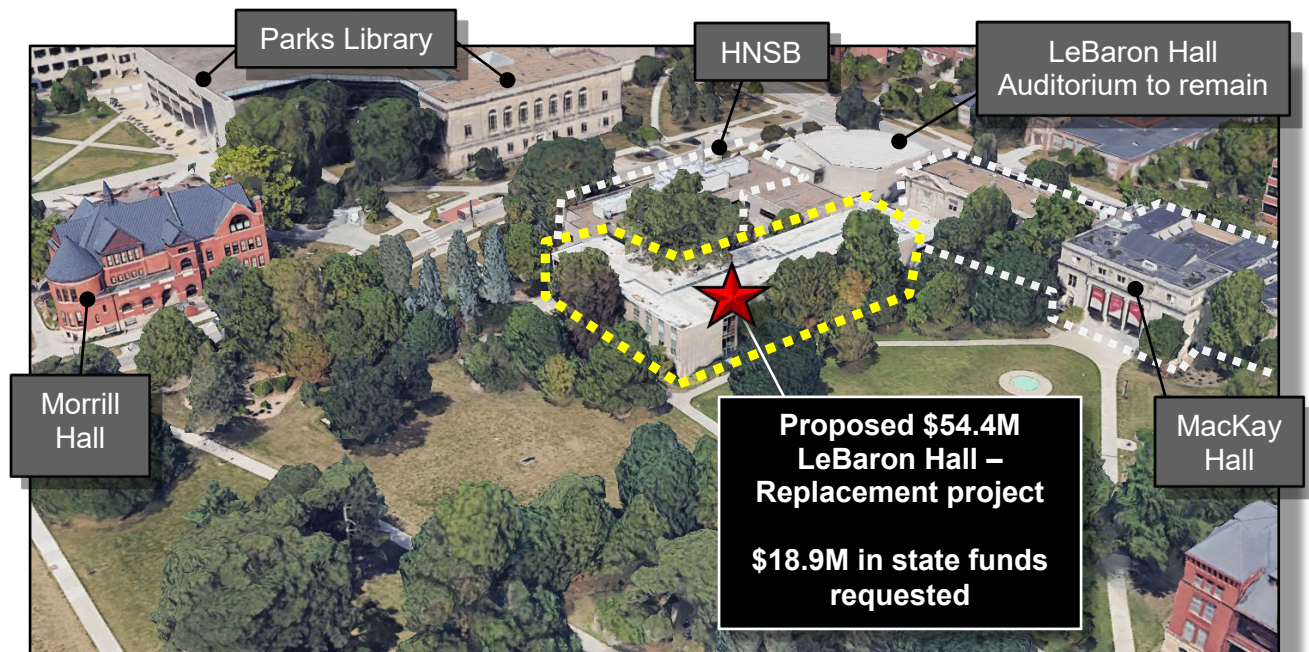
ISU College of Human Sciences

Project Schedule

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



Iowa State University, central campus
Looking north



Iowa State University, north side of central campus
Looking northwest

The 49,000 gsf section of LeBaron Hall, proposed for demolition, has not been significantly renovated since it was constructed in 1958.

Over half of the College of Human Sciences (CHS) resides in a contiguous four-building complex on central campus, which includes LeBaron Hall (1958) and MacKay Hall (1911), Human Nutritional Sciences Building (1992) and Palmer Hall (2000).

Following a comprehensive, holistic and long-term space study in 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 revealed that mechanical systems are outdated. Air distribution is poor. Plumbing is inadequate and electrical and data systems have limited capacity and distribution. Accessibility within the four-building 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.

CHS programs are highly ranked, yet current facilities do not match that programmatic excellence.

The "LeBaron Hall – Replacement" project would result in new and updated facilities, offering a contemporary learning environment, encouraging independent learning and leadership building, better preparing students through industry-based and experiential learning, while creating a sense of community and inclusiveness within the CHS.

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 3,845 students, 204 faculty and 164 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.

The college prepares leaders in healthcare, social services, education, nutrition and wellness, hospitality and events, and STEM – job sectors with projected growth rates of 19-23% in Iowa¹.

¹ (2015) Iowa: *Education and Workforce Trends Through 2025* by the Iowa Department of Education

c. Veterinary Diagnostic Laboratory (VDL) Addition

Iowa State University

	Proposed <u>Appropriations</u>	<u>Gifts</u>	<u>University Funds</u>	<u>Total</u>
FY 2023	\$15,700,000	-	-	\$15,700,000
FY 2024	17,600,000	-	-	17,600,000
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	\$60,800,000	\$1,000,000	\$2,500,000	\$64,300,000

Annual Operating Expenses

Operations and Maintenance	\$ 217,000
Utilities	543,000
Other (Grounds, Mail, Environmental Health & Safety, Department of Public Safety)	57,000
Annual Capital Renewal	600,000
Total	\$1,417,000

Annual Operating Expenses: Source of Funds

ISU College of Veterinary Medicine

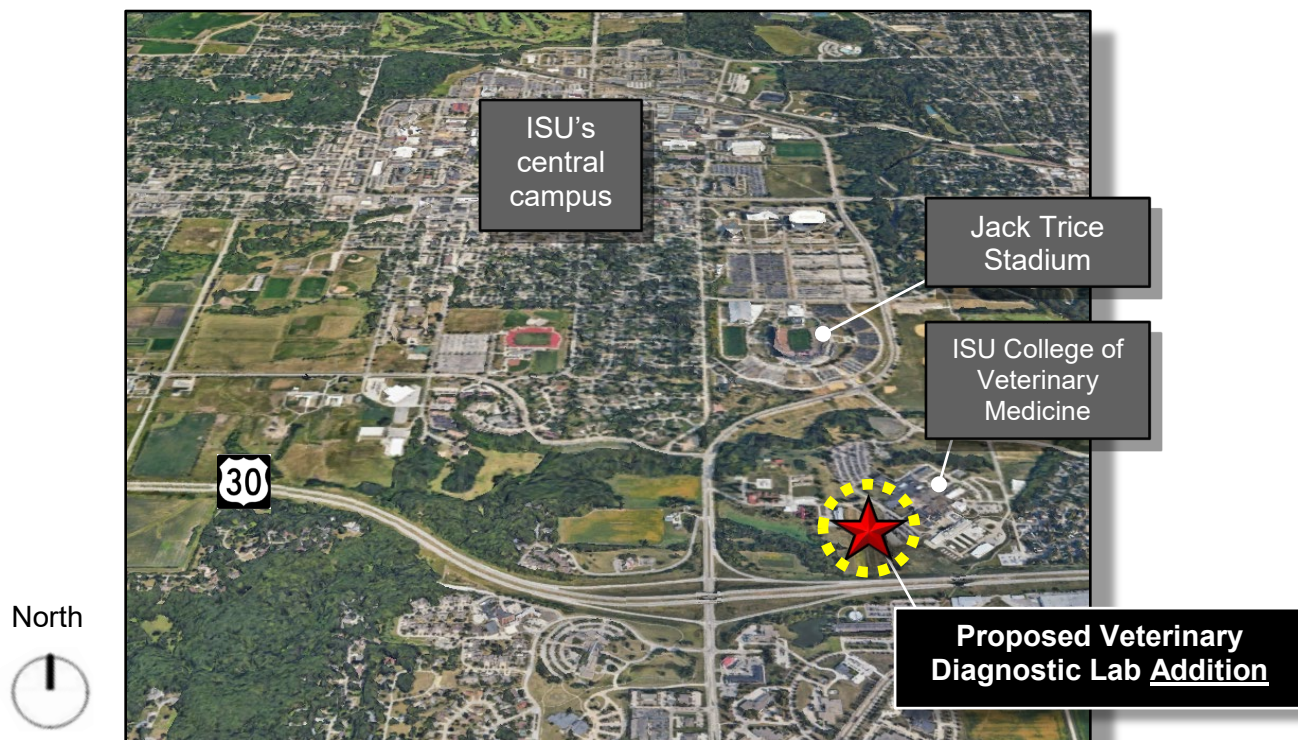
Project Schedule

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

In 2018, the General Assembly authorized \$63.5 million toward the design and construction of a \$75 million, 72,500 gsf new Veterinary Diagnostic Lab (VDL), which houses case receiving, initial assessment, and sample processing functions. That project is currently under construction and is scheduled to be complete in August 2023.

This new request for \$60.8 million in state funds would go toward a \$64.3 million, 69,600 gsf addition to the building under construction to accommodate all remaining VDL programs under one roof, including laboratory testing, research space and support functions. These remaining programs constitute critical laboratory functions, which affect more than 85% of all cases processed by the VDL. This addition would consolidate 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.

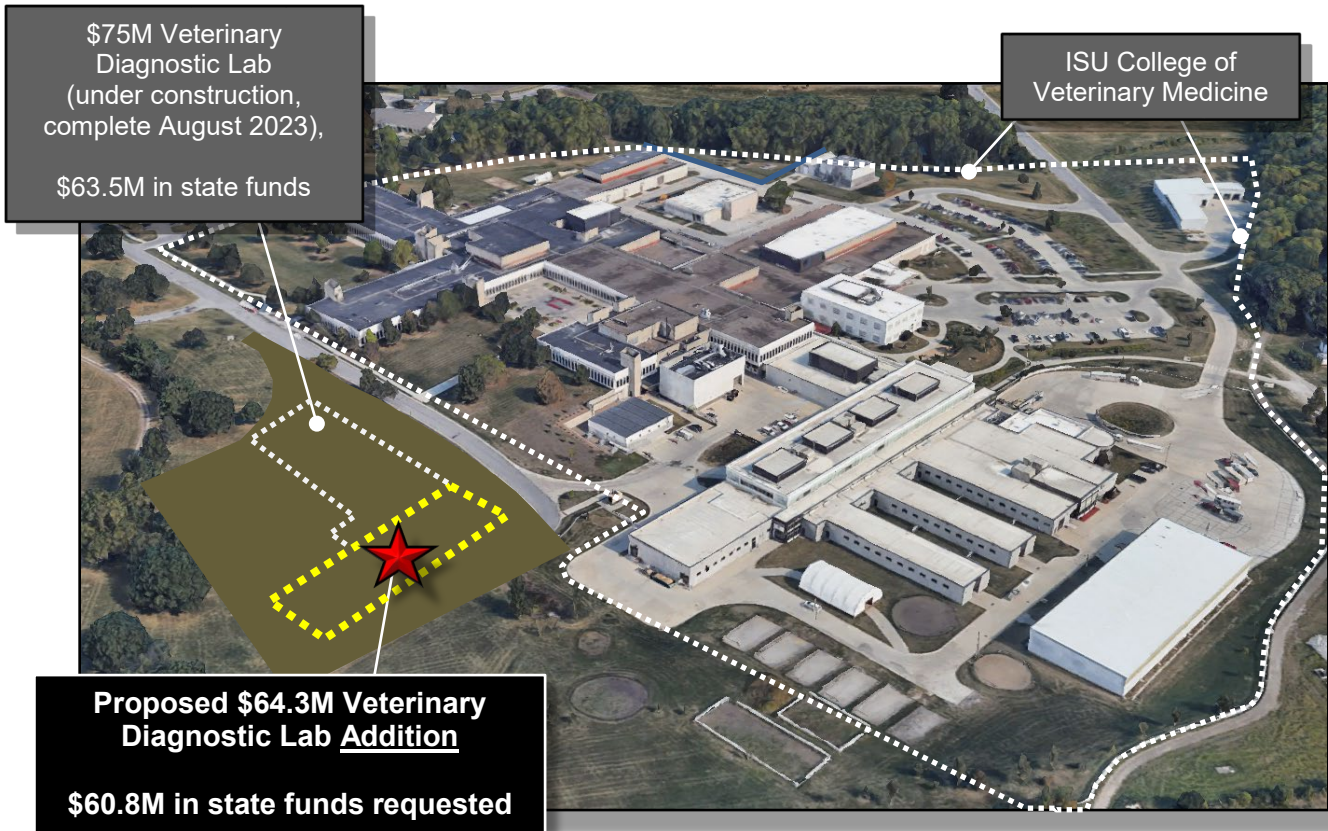
The ISU VDL protects animal and human health, and advances Iowa's \$32.5 billion dollar animal agriculture industry by providing timely, high quality, and comprehensive veterinary diagnostic services, instruction, and applied research to advance diagnostic and production animal medicine. The VDL has 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.



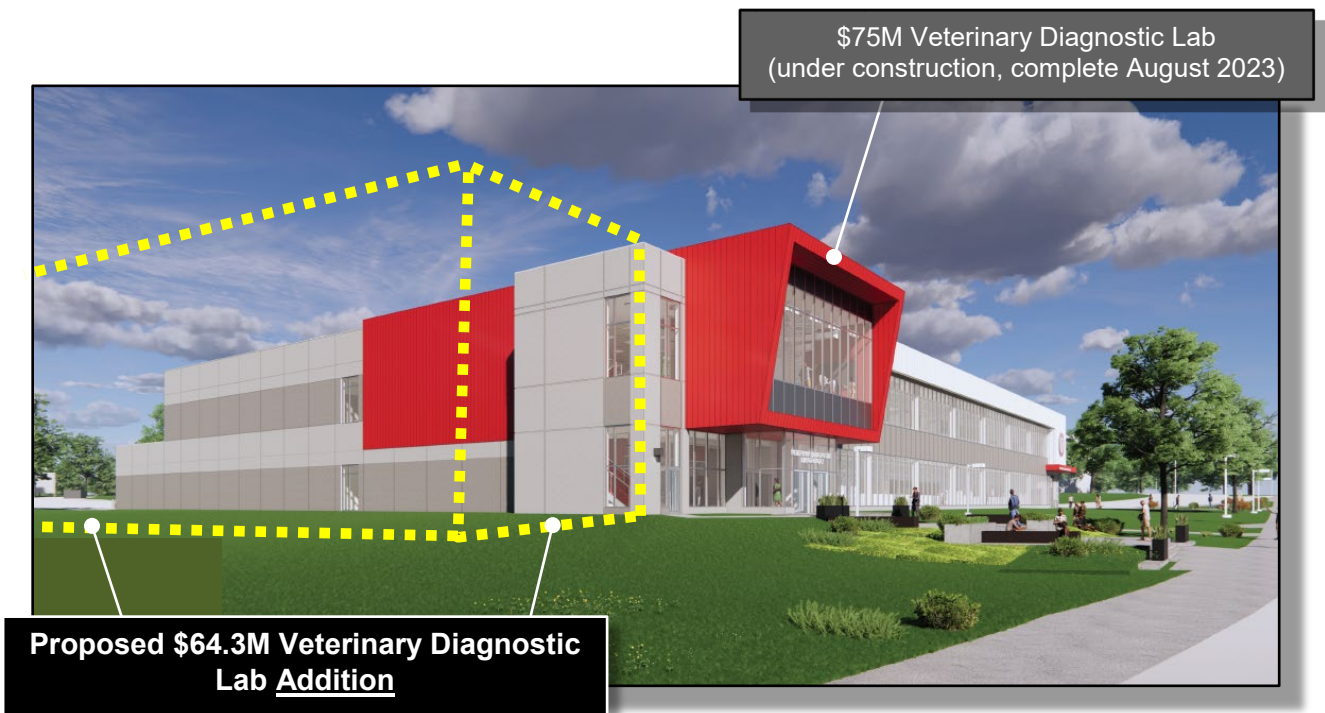
The VDL caseload has more than doubled in the last five years, which has exacerbated the critical shortage of functional and programmatically appropriate space. Deficiencies in space, functional layout and building environmental infrastructure affect the ability of the VDL to serve Iowa's animal agriculture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

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.

A 142,100 gsf facility (VDL 72,500 gsf + VDL Addition 69,600 gsf) is required to accommodate all ISU Veterinary Diagnostic Lab operations.



Proposed Iowa State University, Veterinary Diagnostic Laboratory Addition project



Proposed Iowa State University, Veterinary Diagnostic Laboratory Addition project

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 would 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 consolidates all diagnostic laboratory functions is required.

d. McCollum Science Hall Renovation

University of Northern Iowa

\$30,000,000 in deferred maintenance would be eliminated through this project.

	<u>Appropriations</u>	<u>Gifts</u>	<u>University Funds</u>	<u>Total</u>
FY 2023	-	-	-	-
FY 2024	-	-	-	-
FY 2025	-	-	-	-
FY 2026	\$14,000,000	-	-	\$14,000,000
FY 2027	26,000,000	-	-	26,000,000
FY 2028+	50,000,000	-	-	50,000,000
Total	\$90,000,000	-	-	\$90,000,000

Project Schedule

Planning	14 months
Bidding	3 months
Construction	54 months
Total	71 months

The McCollum Science Hall is a 172,405 gross square foot building of which approximately 62% was constructed in 1968 and the remainder in 2008. The 40-year difference in age creates great disparity in the education of students between the two sections of the building, with the older section deteriorating quickly. The proposed project would completely renovate the older portion of the building, modernizing it to accommodate 21st Century science teaching and research.

The best solution to the problem is to completely renovate the original building, replacing antiquated mechanical, electrical and life-safety system, and seek ways to improve the delivery of the programs within the building.

The proposed project would modernize the McCollum Science Hall to improve teacher education in STEM disciplines, enhance the experience of students in STEM fields, and support the needs of Iowa industry for an educated workforce in the sciences. Work would include a complete replacement of the mechanical and electrical systems in the 1968 portion of the building, as well as programmatic changes that would improve educational outcomes and improve research endeavors. Approximately 107,000 GSF would be renovated.

This project addresses the critical life safety issues associated with the original portion of the building (eastern 62%) by modernizing the HVAC, electrical and fire suppression systems. Built in 1968, the original portion of the building uses a constant volume (CV) system that recirculates a portion of the air, which is no longer allowed by code in laboratory spaces. The renovation would convert the system to variable air volume (VAV) mechanical systems and fume hoods, which would provide a code compliant system at maximum efficiency.

Five Project Phases:

Phase 1 = project design

Phase 2 = building-wide infrastructure renovation, including new exterior mechanical shafts

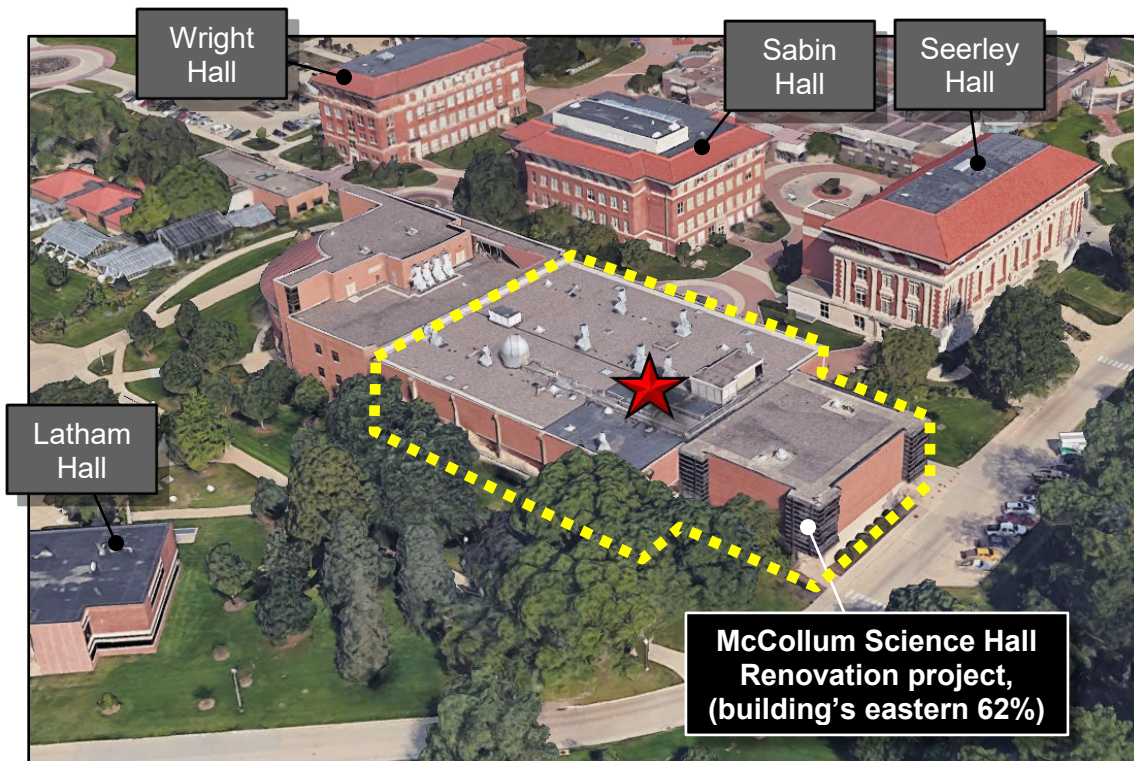
Phase 3 = floor by floor renovation of the building

Phase 4 = floor by floor renovation of the building

Phase 5 = floor by floor renovation of the building



University of Northern Iowa campus
Looking north



University of Northern Iowa's central campus, looking northwest

McCollum Science Hall is a core facility, critical to the mission of the university. It houses the department of Biochemistry and Chemistry, Biology, Science Education and centrally scheduled classrooms used by all departments and colleges of the university. UNI's statutorily mandated primary responsibility is to "prepare teachers and other educational personnel for schools, colleges and universities and to carry out research and provide consultative and other services for improvement of education throughout the state." ¹

In today's world, science, technology, engineering and mathematics, it is critical that educators be well versed in how to teach modern science. UNI graduates in all disciplines are likely to have courses in this building to meet graduation requirements. For example, majors in Criminology have requirements in the physical science to obtain their degree. Students also complete their undergraduate degrees at UNI and then transfer to other institutions to complete masters and doctoral degrees.

Programs delivered in this building are designed to give students a foundational understanding of the sciences from which advanced work can be developed. Students that complete these programs are well versed in the sciences, giving them the ability to teach STEM subjects in elementary and secondary schools; seek advanced degrees in the sciences; and enter the workforce with broad experience in science. For this reason, the renovation of McCollum Science Hall would directly benefit and support the state of Iowa's goal of having an educated workforce for the 21st century. More than 550 students have majors in disciplines in these programs and nearly 1300 student have classes in the building each year.

¹ Iowa Code 2021, Section 268.2

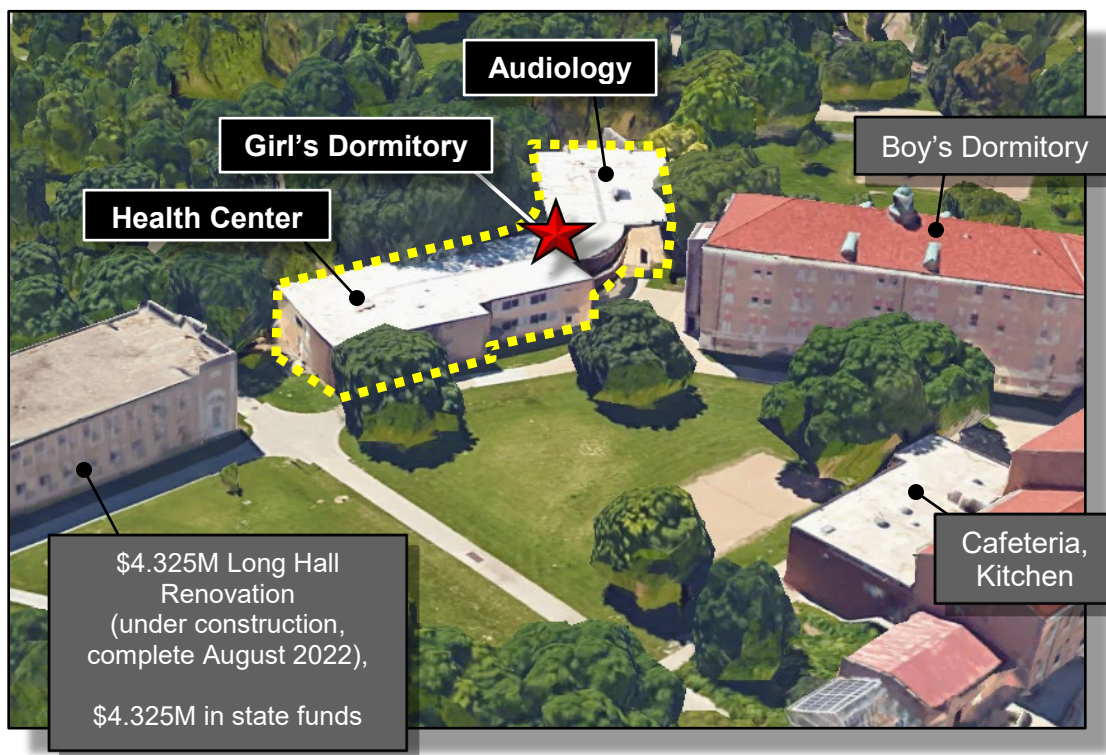
e. Girls Dormitory HVAC & Electrical
Iowa School for the Deaf

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

	<u>Appropriations</u>	<u>Gifts & Other Funds</u>	<u>Total</u>
FY 2023	\$5,180,000	-	\$5,180,000
FY 2024	-	-	-
FY 2025	-	-	-
FY 2026	-	-	-
FY 2027	-	-	-
Total	\$5,180,000	\$0	\$5,180,000

Built in 1961 (southern half, three stories) and 1971 (northern half, four stories), ISD's Girls' Dormitory houses 35 female students ages five to 18 years old 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 heating, ventilation and air conditioning (HVAC) 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.



Iowa School for the Deaf, looking northwest
Girl's Dormitory, built in 1961 & 1971
Girl's Dormitory HVAC & Electrical project

The fire detection system needs to be upgraded to adequately notify deaf, blind, and deaf and blind students, faculty, staff and members of the public. For example, the system would emit a blue strobe light for an intruder, amber strobe light for bad weather and white strobe light for fire. Likewise, rather than the standard 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 residents uncomfortable and causing the existing HVAC system to work even harder. Water is seeping into the basement through cracks in the concrete foundation walls. To resolve this, this project would waterproof the foundation and tuckpoint 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 that have on-site residency. The upgrades would address the inefficiencies and provide space conducive to achieving the mission of both ISD and IESBVI.

Project Schedule

Planning	1.5 months
Bidding	1.0 months
Construction	12.0 months
Occupancy	0.5 months
Total	15.0 months

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

\$1,200,000 in deferred maintenance would be eliminated by this project.

	<u>Appropriations</u>	<u>Gifts & Other Funds</u>	<u>Total</u>
FY 2023	\$ 520,000	-	\$ 520,000
FY 2024	675,000	-	675,000
FY 2025	-	-	-
FY 2026	-	-	-
FY 2027	-	-	-
Total	\$1,195,000	\$0	\$1,195,000

FY 2023: \$520,000 = WOI-FM back-up site
Project would replace

WOI-FM, owned by, and licensed to, Iowa State University, is the main signal for the Iowa Public Radio network in the Des Moines/Ames area, and is an essential hub for our 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.



Iowa Public Radio's \$520,000 WOI-FM back-up site project
Three miles southwest of ISU's central campus

Portions of WOI-FM's main transmitter system are over 25 years old, and the analog-only back-up has been retired, having been over 40 years old. The WOI-FM transmission line and antenna are also over 20 years old, and the transmission line 20' segments are connected by obsolete

clamps. A failure in any of the segments would likely necessitate replacement of the entire transmission line. The usual life of transmission systems is 15-20 years, so this equipment has exceeded 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.

This project was originally in our capital plan for 2017, making this the 7th year this is on our capital needs list. Due to lack of funding, we are now approaching this project in 3 phases: 1) replacement of the transmitter (\$230,000 included in Iowa Public Radio's FY22 budget); 2) the back-up site (\$520,000) referenced above for FY23 and 3) replacement of the antenna and transmission line (\$415,000) in FY24.

FY 2024: \$675,000 = \$415,000 WOI-FM antenna and transmission line + \$260,000 KSUI-FM transmission line



Iowa Public Radio's \$415,000 WOI-FM antenna and transmission project, Three miles north of Ankeny

This project would replace the transmission line for KSUI, owned by, and licensed to, the University of Iowa. KSUI is IPR's largest classical signal, serving 48,000 listeners in 13 counties in eastern Iowa each week. IPR's classical service – with 10 stations statewide – is the only full-time, classical music radio service in the state.

This station's transmission line failed catastrophically in late 2015, making the site inoperable for several weeks until repairs were completed. Fortunately, this station does have a lower powered back-up site, which continued to provide service, at least, to Cedar Rapids and Iowa City.

Even though the line has been repaired, it is still a compromised line and subject to another failure with no advance warning. Given the high cost of tower crew labor, replacement is a much better strategy than emergency repairs.



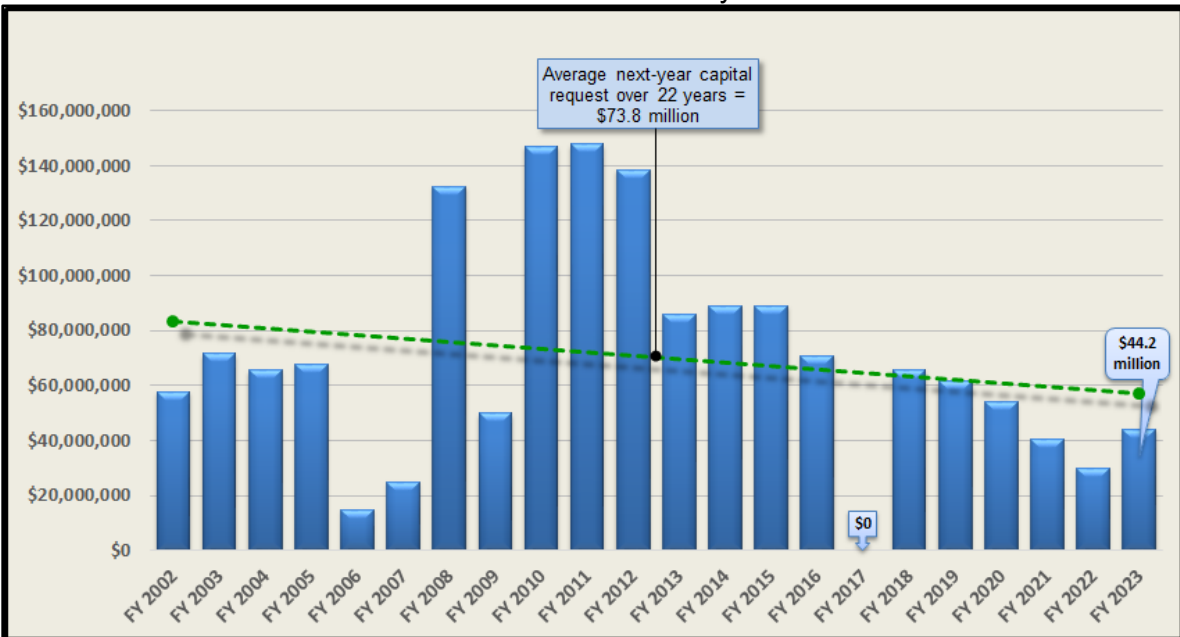
Iowa Public Radio's \$260,000 KSUI-FM transmission line project
11 miles northeast of UI's central campus, outside of West Branch

**Project Schedule
for all IPR projects**

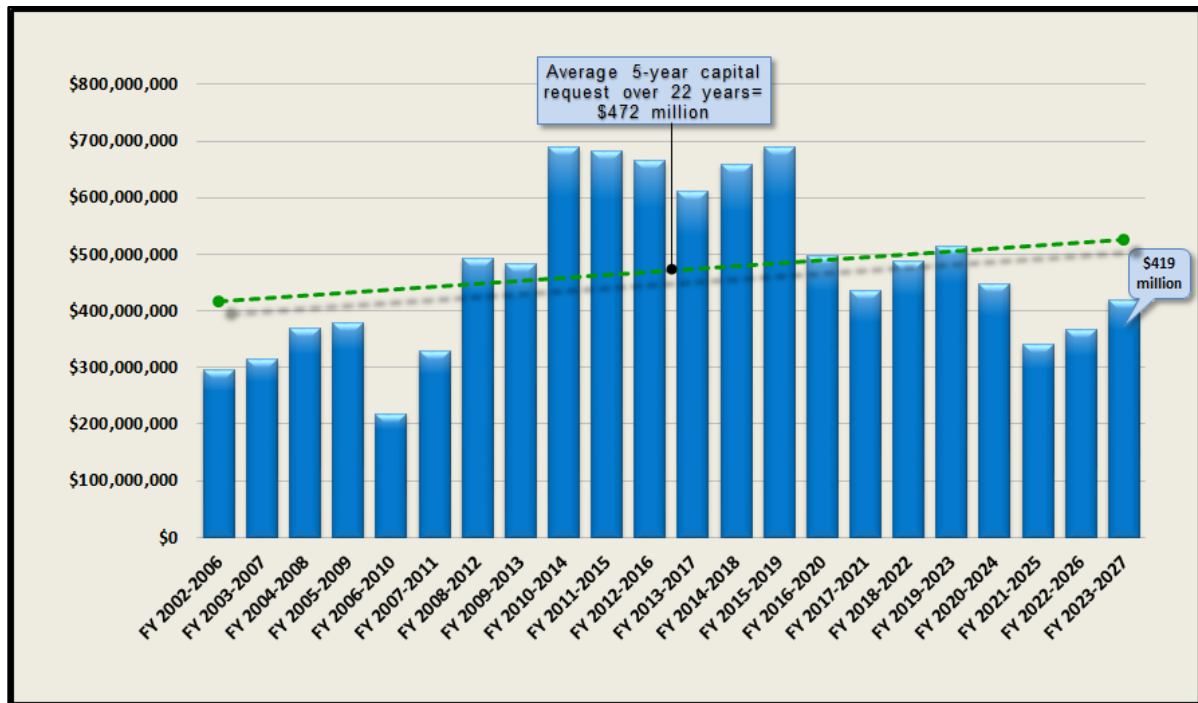
Planning	3 months
Bidding	1 months
Construction	8 months
Total	12 months

4. History of Capital Requests for State Funds

First Year Only



All Five Years



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5. Five-Year Capital Plan for UIHC

This Five-Year Capital Plan for University of Iowa Hospitals and Clinics projects for FY 2023-FY 2027 for \$521 million is up \$334 million from last year's five-year plan for \$187 million due to the new UIHC at Forevergreen Road project. The plan 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 2023 - FY 2027 (\$ in thousands)

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Total	Source of Funds*
Fire and Environmental Safety							
Facility Wide Improvements to Meet Accreditation/Regulatory Requirem	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 1,000	9
Fire Protection Systems Replacement / Enhancements (multiple projec	200	200	200	200	200	1,000	9
	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 2,000	
RENOVATION							
UIHC Electrical Power Enhancements (multiple projects)	\$ -	\$ 6,275	\$ 3,525	\$ 3,080	\$ 6,300	\$ 19,180	9
UIHC Facilities Enhancement Program (multiple projects)	-	10,000	10,000	10,000	10,000	40,000	9
UIHC Facility Infrastructure Investment (multiple projects)	-	18,600	20,400	20,100	-	59,100	9
Installation of Diagnostic & Therapeutic Imaging Equipment Per Siemen	6,360	4,390	5,960	3,740	1,250	21,700	9, 11
Cancer Center Infusion Expansion	-	400	3,300	-	-	3,700	9
7 JPP Inpatient Unit Conversion	3,000	6,000	11,000	1,000	-	21,000	9, 11
Subtotal =	\$ 9,360	\$ 45,665	\$ 54,185	\$ 37,920	\$ 17,550	\$ 164,680	
NEW FACILITY							
UIHC Forevergreen Road - Construct Facility **	\$ 113,600	\$ 147,000	\$ 67,084	\$ 27,287		\$ 354,971	9, 11
Subtotal =	\$ 113,600	\$ 147,000	\$ 67,084	\$ 27,287	\$ -	\$ 354,971	
Total =	\$ 123,360	\$ 193,065	\$ 121,669	\$ 65,607	\$ 17,950	\$ 521,651	

*** 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 Bonds | 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 2023-2027 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 2023-2027. It does not include projects with previously approved budgets that will have expenditures during the FY 2023-2027 period.

** FY 2021 actual expense and FY 2022 projection are not included in the total for this line.

The Five-Year Capital Plan for Other Funds for \$751 million for all three universities is down 15% from last year's \$882 million.

Five-Year Capital Plans for Other Funds
Other Funds do not include state funds or UIHC funds.
(\$ in thousands)

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Total
SUI	\$29,704	\$66,522	\$108,768	\$114,073	\$65,612	\$384,679
ISU	88,292	88,497	49,037	21,142	8,867	255,835
UNI	34,829	33,735	26,736	13,086	2,836	111,222
Total	\$152,825	\$188,754	\$184,541	\$148,301	\$77,315	\$751,736 *

* down 15% from last year



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

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Five Year Total	Source of Funds*
FIRE & ENVIRONMENTAL SAFETY	\$ 1,200	\$ 1,250	\$ 1,300	\$ 1,350	\$ 1,400	\$ 6,500	2
DEFERRED MAINTENANCE	7,000	9,000	12,000	15,000	20,000	63,000	2
CAMPUS SECURITY	1,000	1,000	1,000	1,000	1,000	5,000	2
NEW CONSTRUCTION							
College of Public Health Consolidation	\$ -	\$ 500	\$ 6,500	\$ 18,000	\$ 10,000	\$ 35,000	4, 5
Field Hockey Locker Room and Press Box	-	2,000	-	-	-	\$ 2,000	4, 6
IIHR Facility	-	2,500	10,000	5,500	-	\$ 18,000	4, 5
Tippie College of Business Facility	-	-	12,000	11,500	4,000	\$ 27,500	4, 5
Track Complex	4,000	-	-	-	-	\$ 4,000	4, 6
Subtotal =	\$ 4,000	\$ 5,000	\$ 28,500	\$ 35,000	\$ 14,000	\$ 86,500	
RENOVATIONS							
Art Building - Modernization	\$ 2,000	\$ 14,500	\$ 8,000	\$ -	\$ -	\$ 24,500	2, 3, 4
Athletic Facilities - Renewal & Improvements	500	500	500	500	500	2,500	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
Bowen Science Building - Renovate 3rd Floor, All Cores	-	-	-	5,066	4,246	9,312	4, 6
Calvin Hall - Renovate	-	1,500	8,000	1,000	-	10,500	3
College of Medicine Facilities - Renewal & Improvements	540	562	585	608	632	2,927	4, 5
Duane Banks Field - Stadium Upgrades	-	15,000	-	-	-	15,000	4, 6
Halsey Hall - Raze	-	-	-	3,000	-	3,000	2
Housing Facilities - Renewal & Improvements	10,350	11,250	4,750	8,650	6,250	41,250	6
Jefferson Building - Modernization	-	2,200	8,000	7,800	-	18,000	3
Old Capitol - Repair West Terrace	-	-	2,500	-	-	2,500	2
Old Museum of Art - Revitalization	-	3,000	10,000	5,000	-	18,000	4
Medical Laboratories - Renovate 2nd Floor	-	2,812	-	-	-	2,812	4, 5
Telecommunications - Renewal & Improvements	3,100	3,100	3,100	3,100	3,100	15,500	5
University Capitol Centre - Renovate for Student Services	350	2,500	500	-	-	3,350	3, 4, 5
Westlawn - Raze	-	-	3,500	-	-	3,500	2, 3
Subtotal =	\$ 16,840	\$ 56,924	\$ 49,435	\$ 44,964	\$ 30,155	\$ 198,318	
PARKING / INSTITUTIONAL ROADS							
Hospital Ramp 1 Replacement	\$ -	\$ -	\$ -	\$ -	\$ 19,285	\$ 19,285	5, 6
IMU Facility Replacement	-	-	-	29,870	-	29,870	5, 6
Institutional Roads Program	872	872	872	872	872	4,360	7
New Ramp Lot 43	-	-	25,000	-	-	25,000	5, 6
Parking System - Renewal & Improvements	5,592	2,050	1,860	1,300	1,300	12,102	5, 6
Reconstruct Lot 11 North - Phase 1	-	-	3,101	-	-	3,101	5, 6
Reconstruct Lot 11 South - Phase 2	-	-	-	2,067	-	2,067	5, 6
Reconstruct Lot 13	-	1,676	-	-	-	1,676	5, 6
Reconstruct Lot 40/44	2,400	-	-	-	-	2,400	5, 6
Subtotal =	\$ 8,864	\$ 4,598	\$ 30,833	\$ 34,109	\$ 21,457	\$ 99,861	
SUI Total = \$ 29,704 \$ 66,522 \$ 108,768 \$ 114,073 \$ 65,612 \$ 384,679							

*** 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)

Iowa State University	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Five Year Total	Source of Funds
FIRE & ENVIRONMENTAL SAFETY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
DEFERRED MAINTENANCE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
CAMPUS SECURITY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
UTILITY IMPROVEMENTS							
Well #9 Replacement	500	-	-	-	-	500	6
Subtotal =	\$ 500	\$ -	\$ -	\$ -	\$ -	\$ 500	
NEW CONSTRUCTION							
IMSE Building	-	-	-	-	-	-	
Private Funds	22,500	22,500	-	-	-	45,000	4
University Funds	2,500	2,500	-	-	-	5,000	5
CCEE Intelligent Infrastructure Facility	2,500	2,500	-	-	-	5,000	4
Complex for Advanced Packaging Research	-	5,000	5,000	-	-	10,000	4
Southwest Recreation Complex-Challenge Course	-	-	-	-	1,200	1,200	6
Comprehensive Pet Cancer Center							
Private Funds	-	-	990	-	1,160	2,150	4
University Funds	-	-	990	-	1,165	2,155	5
Southwest Field Complex Lighting	-	-	1,000	-	-	1,000	6
Culinary Support Center	5,000	5,000	2,000	-	-	12,000	6
Subtotal =	\$ 32,500	\$ 37,500	\$ 9,980	\$ -	\$ 3,525	\$ 83,505	
RENOVATIONS							
Swine Teaching and Research	-	\$ 1,500	\$ 3,000	\$ 3,000	\$ -	\$ 7,500	4
Black Engineering Renovation	-	-	2,500	-	-	2,500	4
Town Engineering Building Renovation and Addition	5,000	5,000	-	-	-	10,000	4
Memorial Union-Third Floor-Remodel	-	1,200	1,100	-	-	2,300	6
Agronomy Hall - Cold rooms and growth chamber rooms renovations	1,000	1,000	1,000	-	-	3,000	5
Food Science Building (Food Tech wing renovation)	-	3,000	10,000	10,000	-	23,000	5
Beyer Hall Resurface Outdoor Basketball and Fitness Space	-	350	-	-	-	350	6
Lied- Redesign Flood Protection	-	250	-	-	-	250	6
Cardio Equipment Replacement	-	750	-	-	-	750	6
Resurface 2nd Floor Lied Jogging Track and Old State Gym Track	-	-	-	350	-	350	6
Memorial Union Parking Ramp Capital Improvements	4,500	-	-	-	-	4,500	5
Gilman Hall Renovation	15,000	15,000	10,000	-	-	40,000	4
Hamilton Hall - Renovations for Greenlee School of Journalism	750	-	-	-	-	750	4
Armory – Remodel studio space for BPMI program	-	-	400	-	-	400	5
Ross Hall - Develop multi-departmental reception area	-	500	-	-	-	500	5
Catt Hall - Remodel Student Services area (first floor)	-	300	-	-	-	300	5
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
Design Café Renovation	1,650	-	-	-	-	1,650	6
Courtyard Café Renovation	300	-	-	-	-	300	6
Westside Market Phase II Renovation	250	-	-	-	-	250	6
Conversations Life Cycle Refresh	-	1,000	-	-	-	1,000	6
Seasons Life Cycle Refresh	-	-	1,200	-	-	1,200	6
Subtotal =	\$ 44,950	\$ 40,350	\$ 29,200	\$ 13,350	\$ -	\$ 127,850	

IOWA STATE UNIVERSITY

(continued)

TELECOMMUNICATIONS	\$	5,850	\$	5,480	\$	4,940	\$	3,650	\$	1,000	\$	20,920	6
Subtotal =	\$	5,850	\$	5,480	\$	4,940	\$	3,650	\$	1,000	\$	20,920	
PARKING / INSTITUTIONAL ROADS													
Institutional Roads Program	\$	872	\$	872	\$	872	\$	872	\$	872	\$	4,360	7
Annual Parking Lot Pavement Preservation		2,200		2,800		2,500		1,800		2,000		11,300	6
Subtotal =	\$	3,072	\$	3,672	\$	3,372	\$	2,672	\$	2,872	\$	15,660	
RESIDENCE SYSTEM													
Deferred Maintenance (Residence Halls only)		395		395		395		395		395		1,975	6
Frederiksen Court-Life Cycle Improvements		900		100		950		950		950		3,850	6
Various Fire Alarm Upgrades		-		875		75		-		-		950	6
Various Life Cycle Paint & Corridor Flooring		125		125		125		125		125		625	6
Subtotal =	\$	1,420	\$	1,495	\$	1,545	\$	1,470	\$	1,470	\$	7,400	
ISU Total =	\$	88,292	\$	88,497	\$	49,037	\$	21,142	\$	8,867	\$	255,835	

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 2023	FY 2024	FY 2025	FY 2026	FY 2027	Five Year Total	Source of Funds*
FIRE & ENVIRONMENTAL SAFETY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
DEFERRED MAINTENANCE	-	-	-	-	-	-	
CAMPUS SECURITY	-	-	-	-	-	-	
UTILITY IMPROVEMENTS							
Power Plant Replace CFU Main Tie Transformer	\$ -	\$ -	\$ 500	\$ 500	\$ -	\$ 1,000	6
Power Plant Boiler #4 Gas Conversion	-	-	-	500	1,000	1,500	6
Subtotal =	\$ -	\$ -	\$ 500	\$ 1,000	\$ 1,000	\$ 2,500	
NEW CONSTRUCTION							
No Projects							
Subtotal =	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
RENOVATIONS							
Industrial Technology Center Modernization (Private funds portion)	\$ 2,138	\$ 2,138	\$ -	\$ -	\$ -	\$ 4,276	1, 4
Gallagher Bluedorn Performing Arts Center Expansion	7,000	6,434	-	-	-	14,934	4
Library Archives/Special Collections Renovation	10,000	-	-	-	-	10,000	4
Campanile Renovation and Landscape	400	600	1,000	-	-	2,000	4
Human Performance Center - iCAN Lab	455	2,398	-	-	-	2,853	2, 4
Outdoor Track Replacement	-	1,400	-	-	-	1,400	4
Outdoor Soccer Field	-	1,729	-	-	-	1,729	4
UNI-Dome Roof Replacement	7,500	-	-	-	-	8,000	2, 4, 5 or 6
UNI-Dome Modernization	-	12,000	20,000	10,000	-	42,000	4
Building Repair	1,400	1,400	1,400	1,400	1,400	7,000	2
Subtotal =	\$ 28,893	\$ 28,099	\$ 22,400	\$ 11,400	\$ 1,400	\$ 94,192	
PARKING / INSTITUTIONAL ROADS							
Institutional Roads	\$ 436	\$ 436	\$ 436	\$ 436	\$ 436	\$ 2,180	7
Parking Lot Rehabilitation	400	200	200	250	-	1,050	10
Subtotal =	\$ 836	\$ 636	\$ 636	\$ 686	\$ 436	\$ 3,230	
RESIDENCE SYSTEM							
Noehren Hall Student Room Remodel Phase 2B	\$ 2,000	\$ 2,000	\$ -	\$ -	\$ -	\$ 4,000	6
Residence Hall Roof Replacement	\$ 2,000	-	\$ -	-	-	2,000	6
Residence System - ResNet Upgrades	1,100	-	\$ 1,200	-	-	2,300	6
Dormitory Vanity and Sanitary Piping Replacement	-	3,000	2,000	-	-	5,000	6
Subtotal =	\$ 5,100	\$ 5,000	\$ 3,200	\$ -	\$ -	\$ 13,300	
UNI Total =	\$ 34,829	\$ 33,735	\$ 26,736	\$ 13,086	\$ 2,836	\$ 113,222	

*** 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 Replacement Funds

- 6 Auxiliary Service or Enterprise Revenue Bonds
- 7 Iowa DOT (Road Use Tax Funds)
- 8 Student Health Fee
- 9 Multimodal Transportation Center Maintenance funds
- 10 Parking Operations

End of Section A

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Section B

INSTITUTIONAL ROADS PROGRAM

Executive Summary: Each year, the Iowa Department of Transportation's "State Parks and Institutional Roads Program" funds repairs to the Regents' 90 miles of paved roads. Per the Board's *Policy Manual*, Board approval is required for this program. The Board Office proposes \$1,797,000 in road repairs for CY 2022 and \$11,000,000 over the next five calendar years.

1. Five-Year Institutional Roads Program

Institutional Roads Program			Calendar Years						
			CY 2022	CY 2023	CY 2024	CY 2025	CY 2026	Total	
SUI	Reconstruction and Improvements	Hawkins Drive - Melrose Ave to Evashevski Drive	\$ 124,000	\$ 2,700,000	\$ -	\$ -	\$ -	\$ 2,824,000	
		Culvert Repair under Raptor Ridge Road @ MNRA	150,000	-	-	-	-		
		Iowa Avenue Pedestrian Bridge Repairs	-	100,000	-	-	-		
		Front Street Reconstruction	-	-	-	-	225,155	225,155	
		Reconstruction and Improvement Subtotal	\$ 274,000	\$ 2,800,000	\$ -	\$ -	\$ 225,155	\$ 3,049,155	
Repair	Pavement Management	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 225,000		
	Annual Special Maintenance	150,000	175,000	175,000	300,000	285,845	1,085,845		
	Repair Subtotal	\$ 195,000	\$ 220,000	\$ 220,000	\$ 345,000	\$ 330,845	\$ 1,310,845		
SUI Total			\$ 469,000	\$ 3,020,000	\$ 220,000	\$ 345,000	\$ 556,000	\$ 4,360,000	
ISU	Reconstruction	Scholl Road - Ontario to just north of railroad tracks	\$ 267,000	\$ 295,000	\$ 188,000	\$ -	\$ -	\$ 750,000	
		13th Street - Stange Road east to ISU property limit	-	-	-	222,000	272,000	494,000	
		Improvement Subtotal	\$ 267,000	\$ 295,000	\$ 188,000	\$ 222,000	\$ 272,000	\$ 1,244,000	
	Improvements	Mortensen Road - Traffic Control (City of Ames would add \$200,000 to this \$200,000 allocation of DOT funds.)	\$ -	\$ 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	400,000	
		Reconstruction Subtotal	\$ -	\$ 200,000	\$ 300,000	\$ 300,000	\$ 200,000	\$ 1,000,000	
		Repair	Pavement Management	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 75,000
	Annual Special Maintenance		85,000	85,000	85,000	85,000	85,000	425,000	
	Pavement Preservation		505,000	277,000	284,000	250,000	300,000	1,616,000	
	Repair Subtotal		\$ 605,000	\$ 377,000	\$ 384,000	\$ 350,000	\$ 400,000	\$ 2,116,000	
	ISU Total			\$ 872,000	\$ 872,000	\$ 872,000	\$ 872,000	\$ 872,000	\$ 4,360,000
	UNI	Reconstruction	Strayer-Wood Loop	\$ 336,000	\$ -	\$ -	\$ -	\$ -	\$ 336,000
Wisconsin Street (North of W. 26th Street)			-	411,000	-	-	-	411,000	
Dakota Street (Ohio Street to Redeker Drive)			-	-	411,000	-	-	411,000	
West 31st Street Modifications (Illinois Street to Ohio Street)			-	-	-	236,000	-	236,000	
West 22nd Street (Hudson Road to 200' west)			-	-	-	175,000	-	175,000	
Campus Street (South of University Avenue to Jennings Drive)			-	-	-	-	411,000	411,000	
Reconstruction Subtotal			\$ 336,000	\$ 411,000	\$ 411,000	\$ 411,000	\$ 411,000	\$ 1,980,000	
Repair		Pavement Maintenance	\$ 100,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 200,000	
		Repair Subtotal	\$ 100,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 200,000	
UNI Total			\$ 436,000	\$ 436,000	\$ 436,000	\$ 436,000	\$ 436,000	\$ 2,180,000	
ISD	and	IA LL	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				\$ 1,797,000	\$ 4,348,000	\$ 1,548,000	\$ 1,673,000	\$ 1,884,000	\$ 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) established in 1949 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.



Regent Institutional Roads	
University of Iowa =	32.7 miles
Iowa State University =	45.3 miles
University of Northern Iowa =	10.0 miles
Iowa School for the Deaf =	1.9 miles
Iowa Lakeside Laboratory =	0.3 miles
<hr/>	
Total = 90.2 miles	

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 roughly \$2.2 million for each of the next five calendar years. It is understood that state funds are scarce, but this level of funding is not sufficient to address all Regent roadway improvements.

Over the next five years, this program allocates \$20,000 per year or \$100,000 to the ISD and the Iowa Lakeside Laboratory. The remainder is distributed 40% SUI (\$4,360,000), 40% ISU (\$4,360,000) and 20% UNI (\$2,180,000) for their most urgent roadway needs (see chart on prior page).

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' proposed "Institutional Roads Program" annually.

3. CY 2022 only: breakdown

The \$1,797,000 proposed for CY 2022 is a 4% increase from last year, while the \$11,000,000 proposed for all five years is the same.

Funded by:



SUI See next page.	Hawkeye Park Road – Phase 1		
	Melrose Avenue to Evashevski Drive	\$ 124,000	
	Culvert Repair under Raptor Ridge Road	150,000	
	Pavement Management (ongoing)	45,000	
	Annual Special Maintenance (ongoing)	150,000	\$ 469,000
ISU See next few pages.	Scholl Road – Ontario to just north of railroad tracks	267,000	
	Pavement Management (ongoing)	15,000	
	Annual Special Maintenance (ongoing)	85,000	
	Pavement Preservation (ongoing)	505,000	\$ 872,000
UNI See page 25.	Strayer-Wood Loop	\$ 336,000	
	Pavement Maintenance (ongoing)	100,000	\$ 436,000
ISD & Iowa Lakeside Laboratory	crack sealing/repairs	\$ 20,000	\$ 20,000
Proposed Institutional Roads projects for CY 2022			\$ 1,797,000

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

4. Institutional Road Program Project Descriptions

- a. **University of Iowa:** Hawkeye Park Road Phase 1, Melrose Avenue to Hawkeye Drive planned for CY 2022



University of Iowa, Hawkins Drive – Melrose Avenue to Evashevski Drive project

North

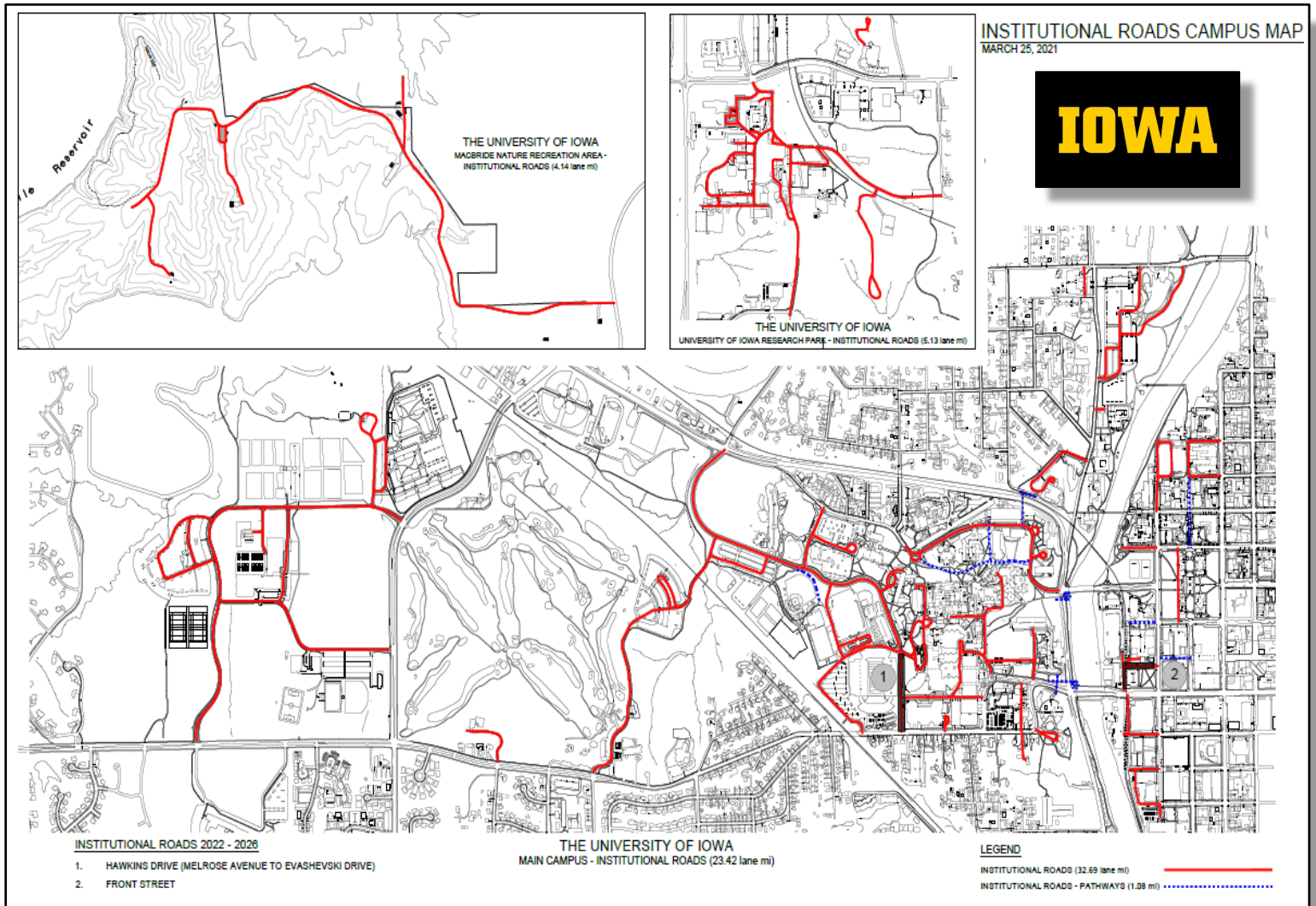




Culvert Repair under Raptor Ridge Road project,
nine miles north of UI's central campus in MacBride Natural Resource Area

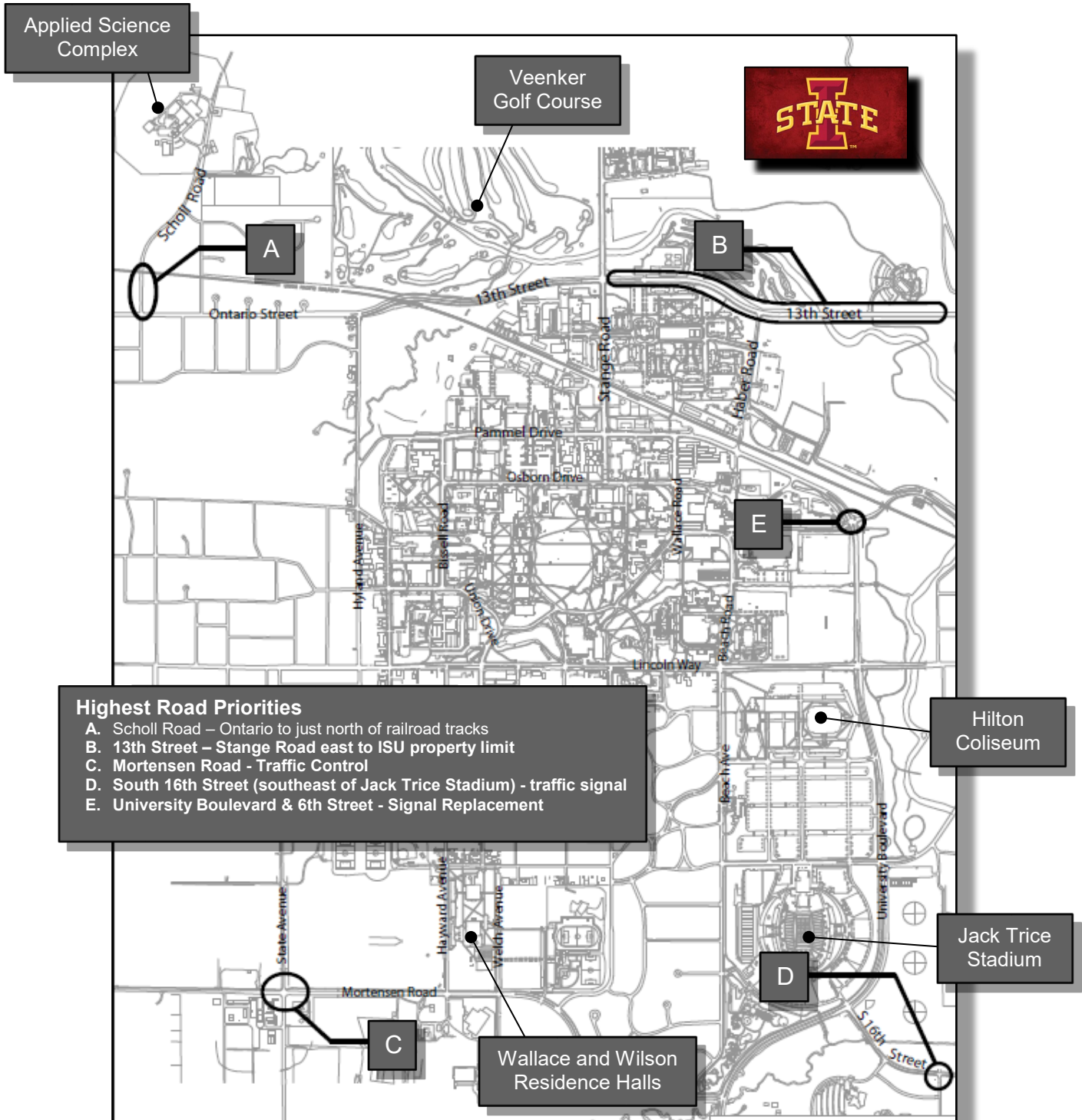
North





University of Iowa's Institutional Roads: 32.7 miles total

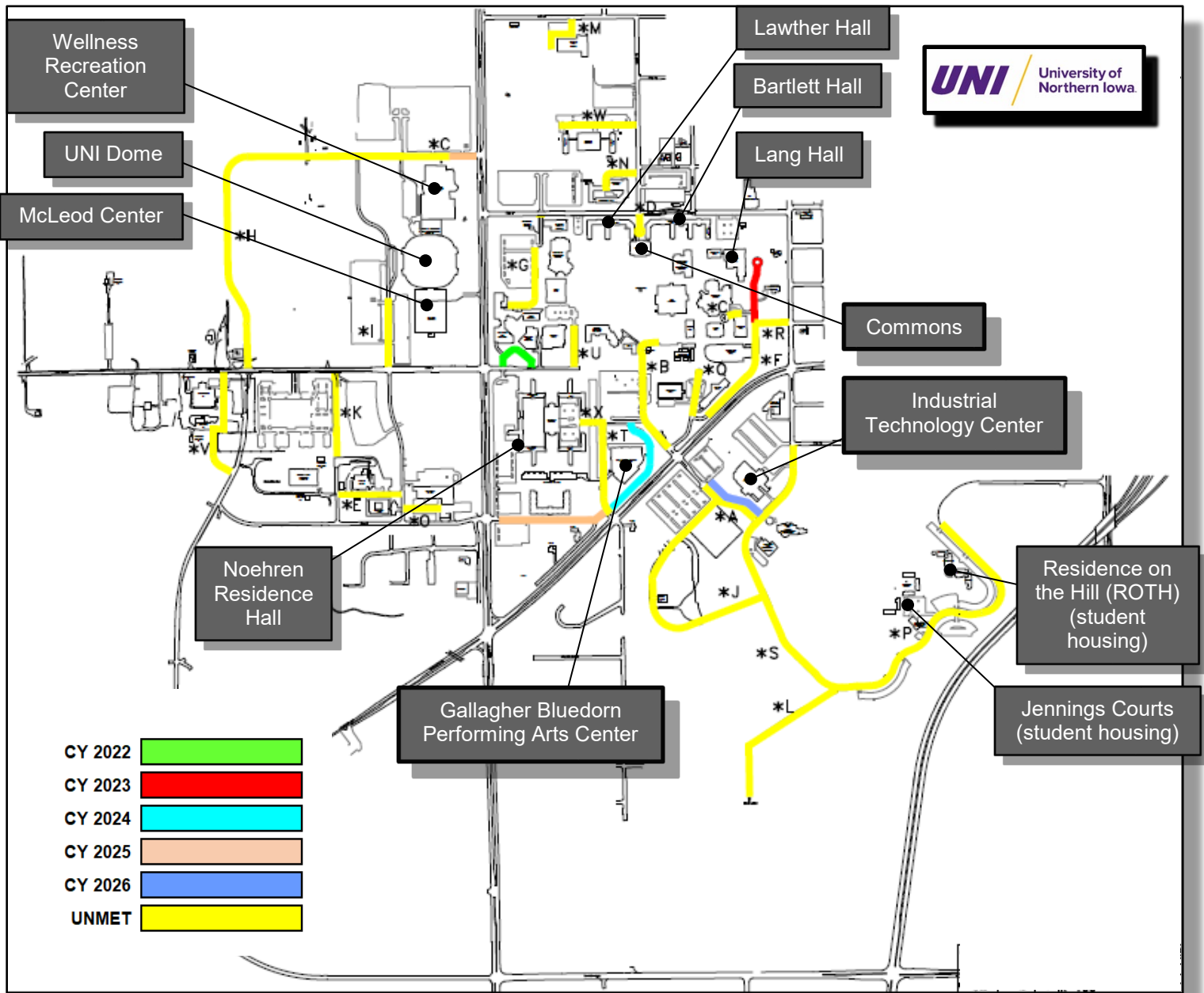
b. Iowa State University: Planned for CY 2022- CY 2026



Iowa State University Institutional Roads: 45.3 miles total



c. University of Northern Iowa: planned for CY 2022- CY 2026



University of Northern Iowa Institutional Roads: 10 miles total



End of Section B

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Section C

FACILITIES GOVERNANCE REPORT

Executive Summary: The annual Facilities Governance Report for FY 2021, required by the Board's *Policy Manual*, is intended to provide the Board with a broad overview the size, age, value and general condition of 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. Quick Facts

Size, Age and Replacement Value of Facilities

• Acres, total	= 5,089 acres*
• Square footage, total	= 41 million gsf
• Building age, average	= 41 years
• Replacement value, GEF facilities	= \$ 9.2 billion
• Replacement value, all facilities	= \$19.0 billion

All Funds Spent: projects over \$250,000

• FY 2021, down 27% from last year	= \$ 210 million
• Average, last 10 years	= 389 million
	difference = (\$ 179 million)

Fire Safety: General Education Fund facilities only

• FY 2021, completed, up 12%	= \$ 2.9 million
• Average completed, last 10 years	= 2.4 million
	difference = \$ 0.5 million

• FY 2022, planned for correction, unchanged	= \$ 2.9 million
• Outstanding Fire Safety, up 33%	= \$12.2 million**

Deferred Maintenance: General Education Fund facilities only

• FY 2021, completed, down 26% from last year	= \$ 23 million
• Average completed, last 10 years	= 31 million
	difference = (\$ 8 million)

• FY 2022, planned, up 71% from last year	= \$ 55 million
• Outstanding Deferred Maintenance	= \$ 1.1 billion**

* Does not include ISU's 9,978 acres in agricultural research farms.

** \$20 million in State Funds is requested annually to address outstanding deferred maintenance, fire & environmental safety, campus security, energy conservation and regulatory compliance as shown in the "Five-Year Capital Plan for State Funds."

2. Size, Age and Replacement Value of Facilities

a. Regent acres:

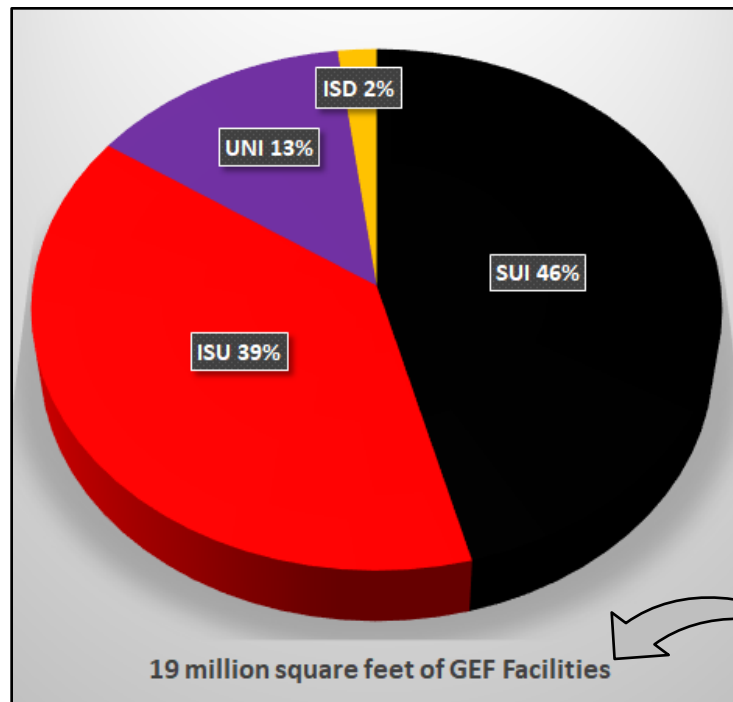
4,572 = on-campus acres, down 1% from last year. Largest transaction was the sale of IBSSS's 40 on-campus acres to the City of Vinton in October 2020.

517 = off-campus acres, down 1% from last year. Largest transaction was the sale of IBSSS's eight off-campus acres to the City of Vinton in October 2020.

ISU's Agricultural Research Farms 9,978 acres were up 4% from last year's 9,589 acres due to a 389 acre real estate gift. These 9,978 acres are not included in the "off-campus acres."

5,089 = total acres, nearly eight square miles

b. Regent square footage: General Education Fund (GEF) facilities, UIHC, athletics, residence halls, parking, utilities and all other facilities



Regent Square Footage by Institution and Use

Gross Square Feet	SUI	ISU	UNI	ISD	Total
Academic, Research, & Administration (GEF)	8,841,268	7,451,594	2,572,318	381,236	19,246,416
GEF subtotal =					19,246,416
UIHC	4,468,736				4,468,736
All Other	7,925,233	7,617,795	2,141,658	-	17,684,686
UIHC and Other Fund subtotal =					22,153,422
Total	21,235,237	15,069,389	4,713,976	381,236	41,399,838

c. Replacement Value of Facilities

The Regents have a total of 41 million gross square feet, which have a replacement value of \$19 billion. Of that 41 million, 19 million square feet is for General Education Fund (GEF) facilities with a replacement value of \$9 billion.

Replacement values play an important role in setting a facility's deferred maintenance budget. The Board's *Policy Manual* states that institutions should annually budget 1.5% of a new facility's replacement value to fund its future deferred maintenance. This 1.5% is not intended fund deferred maintenance in other facilities, which totals \$1.1 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

c. Age and Quality: Sightlines, a nationally known strategic planning and advisory firm specializing in higher education facilities, has consulted with all three 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, which stress all of higher education's ability to care for their facilities, and contribute to 57.5% of our deferred maintenance.

Regent Construction: mid 1800's to present

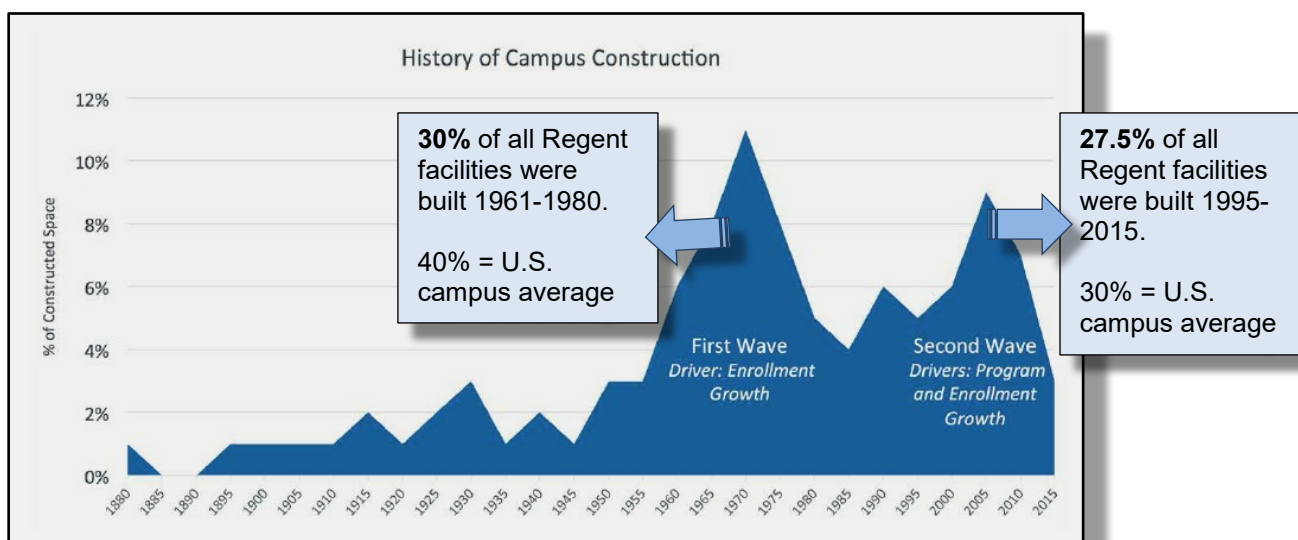
Gross Square Feet (GSF)	GEF (Academic, Research, Administrative, including SUI's Oakdale campus)		All Regent Facilities	
	GSF of original construction	% of Total	GSF of original construction	% of Total
Years				
mid 1800's-1930	3,469,078	18%	4,994,812	12%
1931-1950	657,163	3%	1,443,819	3%
1951-1960	630,500	3%	1,902,546	5%
1961-1970	2,762,941	14%	7,005,438	17%
1971-1980	3,299,249	17%	5,252,304	13%
1981-1990	1,571,137	8%	3,611,333	9%
1991-2000	2,081,417	11%	4,922,803	12%
2001-2010	2,443,922	13%	5,822,572	14%
2011-2020	2,331,597	12%	6,322,191	15%
2021	-588	0%	122,020	0%
Total =	19,246,416	100%	41,399,838	100%

↓

GEF facilities make up 46.5% of all Regent square footage.

30% First Wave of Construction, 1961-1980

27.5% Second Wave of Construction, 1995-2015 only



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

➤ **First Wave of Construction**

The "First Wave" of construction in the 1960s and 1970s represents 30 percent (see previous graph) of Regent GEF facilities and 40 percent of all campus construction in the United States. It 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, but poorly and now represents the Regents' single largest source of deferred maintenance. Now 41 to 60 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 "catch up" need in deferred maintenance.

➤ **Second Wave of Construction**

The "Second Wave" of construction from 1995 to 2015 represents 27.5 percent (see previous graph) of Regent GEF facilities and 30 percent of all campus construction in the United States. It was largely generated by the increasing enrollment of millennials (persons born between 1981 and 1996), who had new 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 "high tech." However, these buildings require much more routine maintenance to keep their sophisticated systems operating at peak performance.

This represents our "keep up" need in deferred maintenance.

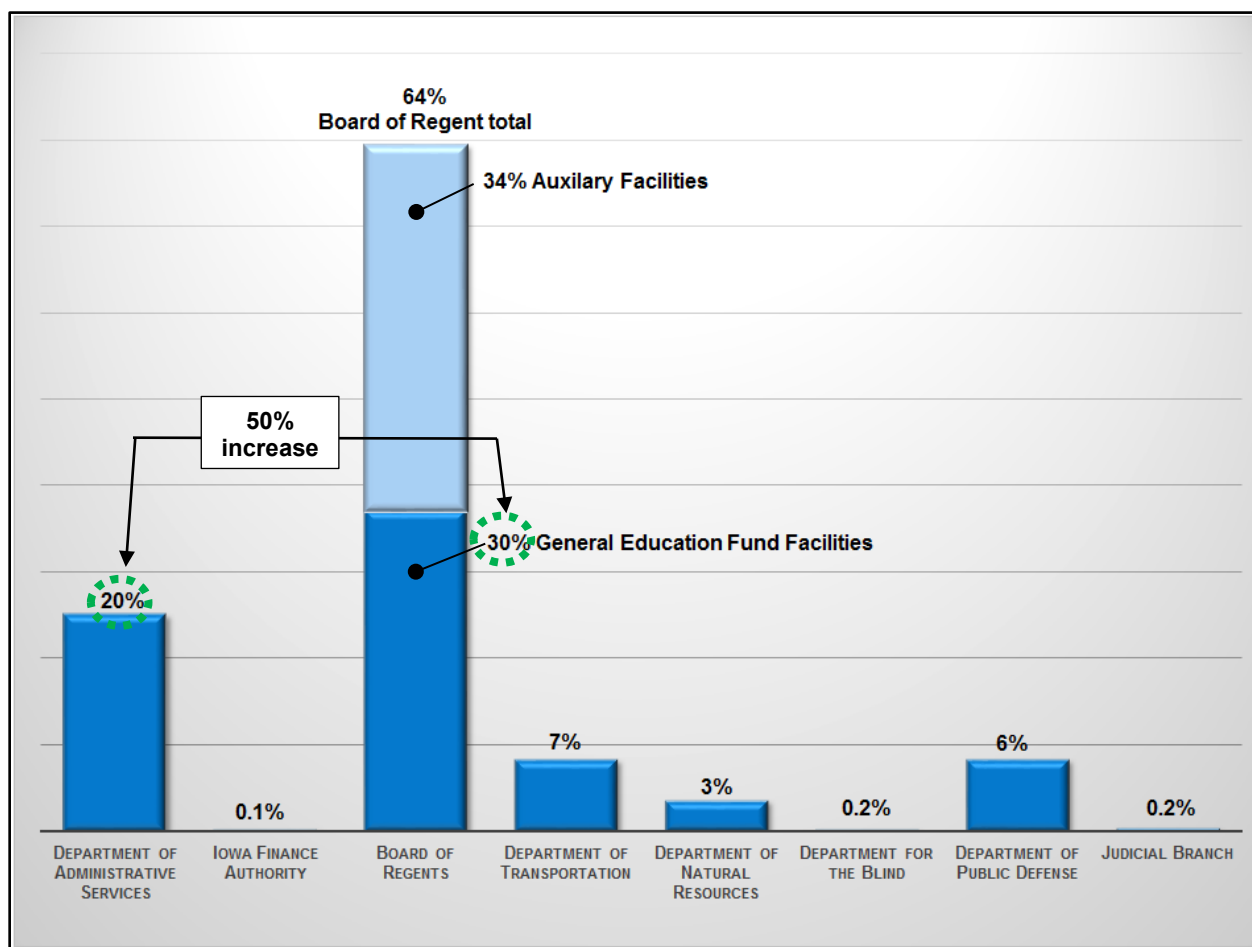
In summary, the Regent's "catch up" needs (30 percent-First Wave) and "keep up" needs (27.5 percent-Second Wave) make up 57.5 percent of all outstanding deferred maintenance in Regent facilities.

3. State-Funded Square Footage Comparison: Regents vs 7 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

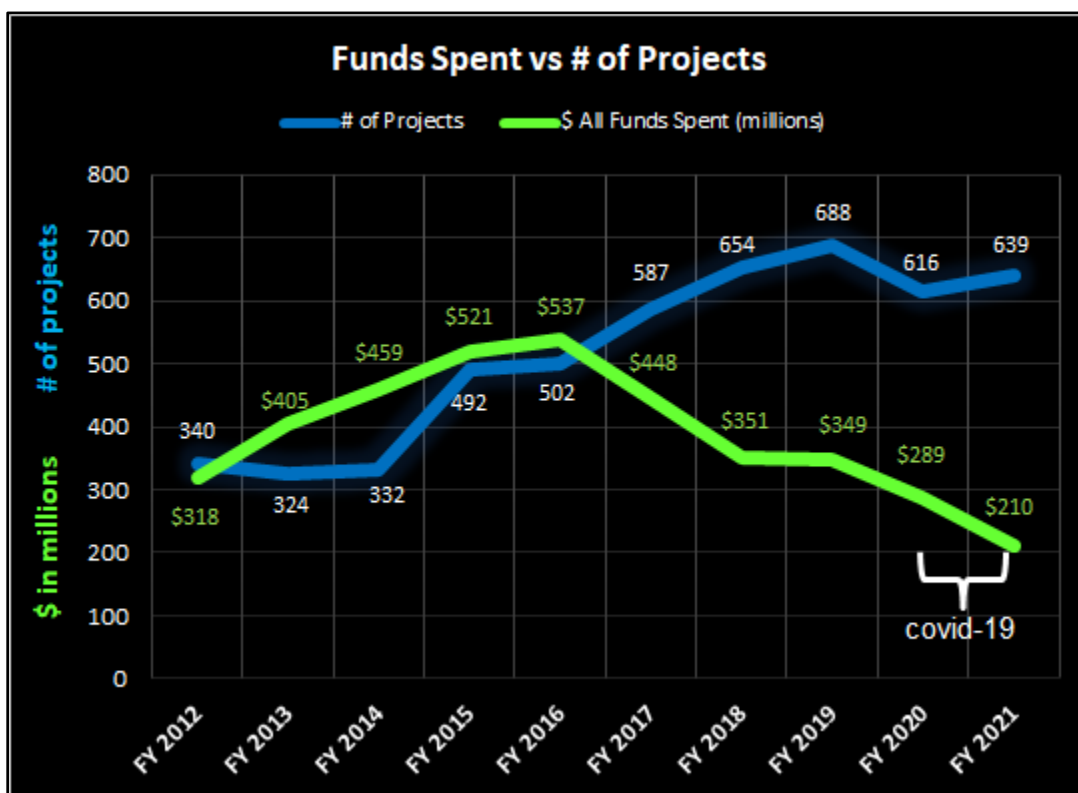
As shown above, the Regents' have 50% more state-funded facilities than the Iowa Department of Administrative Services (DAS).

4. All Funds Spent

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

For all Regent projects over \$250,000 over the last 10 years, Regent institutions together spent an average of \$389 million per year. In FY 2021, institutions spent \$210 million, which is a 27% decrease from FY 2020’s \$289 million. For the first seven of those 10 years, project volume and funds spent increased together until FY 2016, when institutions started utilizing smaller projects to minimize deferred maintenance and make other capital project improvements.

All Funds spent on capital projects over \$250,000, last 10 Years



5. Space Utilization

As you know, the impact of COVID-19 was unprecedented and substantial. It reduced classrooms to roughly 50 percent and heavily skewed space utilization data. In general, the first row of seats in each classroom were left unoccupied to attain social distancing between instructors and students. Due to social distancing requirements, smaller classrooms were not big enough for certain class sections. Classrooms lacking forced ventilation were not used. In addition, classes shifted to 100 percent or partial on-line pedagogy.

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.

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.

FY 2020

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 (FY 2020)

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 (FY 2020)

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 (FY 2020)

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 would 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 classroom utilization.

- ISD continues to lease space 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.
- In July 2021, ISD started a year-long, \$4.3 million renovation of Long Hall, the middle and high school. The project would upgrade classrooms, install ADA-compliant building components, and correct multiple deferred maintenance issues to accommodate the needs of deaf, blind, and deaf and blind students.

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.

7. Interinstitutional Collaboration

Electronic bidding

- Since January 2018, all Regent capital projects utilize an online bidding system called Bid Express. This system saves the Regents nearly \$100,000 per year over paper bids through less administrative time, no copying, no mailings, no paper, and virtually zero bidding errors or bid disputes.

Depending on the number of times they bid on Regent projects, contractors can save up to \$20,000 per year.

Electronic signatures

- Since September 2018, all Regent capital projects utilize the common electronic signature software called DocuSign. It saves the Regents over \$34,000 per year over wet signatures through less administrative time, no copying, no mailings, no paper, no missed signatures and no waiting for documents in the mail. The Board Office does 300 D

Electronic meetings

- In the wake of COVID-19, Zoom meetings are nothing new. Before COVID-19 in October 2018 however, Regent capital project staff starting using Zoom to displace three of their four quarterly, in-person interinstitutional meetings. This change saves the Regents over \$12,500 per year through a 75% reduction in meeting time, fuel costs, and box lunches.
- As of July 2021, ISU and UNI have nearly completed the replacement of their outdated internal contract management softwares, FAMIS and Centric, to Lucernex. FAMIS and Centric had been used by both institutions 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, a private firm who is a leader in Miscanthus technology and production.
 - One acre of Miscanthus grass displaces 8,000 pounds (4 tons) of coal. Since 2013, SUI has planted over 1,200 acres, displacing 9.6 million pounds (4,800 tons) of coal.

Capital Project Management

- With the sale of IBSSS to the City of Vinton in October 2020, ISU's long-standing oversight of special school capital projects has shifted exclusively to ISD.
- SUI continues to oversee Iowa Lakeside Laboratory's capital projects.
- UNI and ISU have collaborated on a RFP and are now implementing the replacement of their capital project (Centric) and building repair/maintenance management systems (FAMIS) with a new integrated workplace management system called Lucernex.
- UNI and ISU continue to meet regularly to share best practices for the power plant operations and utilities.

- UNI and SUI have collaborated on the RFQ process and now share “Indefinite Services” agreements for architecture and engineering design services. ISU preceded this with their own, yet essentially the same, set of “Indefinite Quantity” agreements.
- The Board’s *Policy Manual* continues to be updated regularly to reflect current design and construction practices and simplify processes for all.
- Building maintenance, grounds and custodial staff continue to meet annually to share planning strategies, information and best practices.
- On-going monitoring of state licensure requirements for staff including electricians, plumbers, HVAC techs, fire alarm system installers, elevator mechanics, etc. to assure applicability and compliance for all Regents’ institutions.
- Continuing to collaborate on the merit system classification series to allow for staff development and career paths for facilities personnel.
- The universities continue to share service contracts for environmental testing, hazardous and universal waste disposal, electronic waste recycling and boiler water treatment.
- In the fall of 2021, the Board Office and facility representatives from SUI, ISU and UNI will sponsor three separate webinars entitled “Regent Design and Construction Processes” for Master Builders of Iowa (MBI), the American Institute of Architects (AIA) and the Iowa Engineering Society (IES).

Vehicles

- The universities continue to collaborate in writing vehicle specifications and coordinating vehicle purchases with the Iowa Department of Administrative Services (DAS) and the Iowa Department of Transportation (DOT).
- The universities continue to collaborate with DAS and the DOT in purchasing vehicle fuel.
- UNI, SUI, and ISU continue to collaborate on a vehicle rental fleet overflow contract with Enterprise Rent-A-Car.

Cleaning Supplies

- UNI collaborates with ISU and SUI to purchase cleaning chemicals through a contract with Supply Works.
- UNI, SUI, and ISU collaborate on a maintenance repair and operations contract (MRO) with W.W. Grainger. The company has a broad inventory of equipment and maintenance supply items utilized by the facilities staff.

Office Supplies

- UNI collaborates with SUI and ISU for the purchase of office supplies through a contract with Office Depot.

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 facility 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.



Latest Fire Safety Inspections at Regent Facilities	
University of Iowa ¹	= 2020
UIHC ²	= 2019
University of Iowa ³	= 2020
University of Northern Iowa ⁴	= 2021
Iowa School for the Deaf ⁵	= 2020
¹ The SFMO, City of Iowa City and the UI conduct inspections at the UI biannually.	
² The SFMO, City of Iowa City and the UI conduct inspections at UIHC biannually. Also, the Joint Commission conducts unannounced surveys of UIHC's life safety systems every three years.	
³ In 2017, the SFMO authorized ISU's Environmental, Health & Safety (EH&S) to conduct fire safety inspections at ISU biannually.	
⁴ The SFMO and UNI conduct fire safety inspections at UNI biannually.	
⁵ The SFMO and City of Council Bluffs conduct inspections at ISD biannually.	

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.

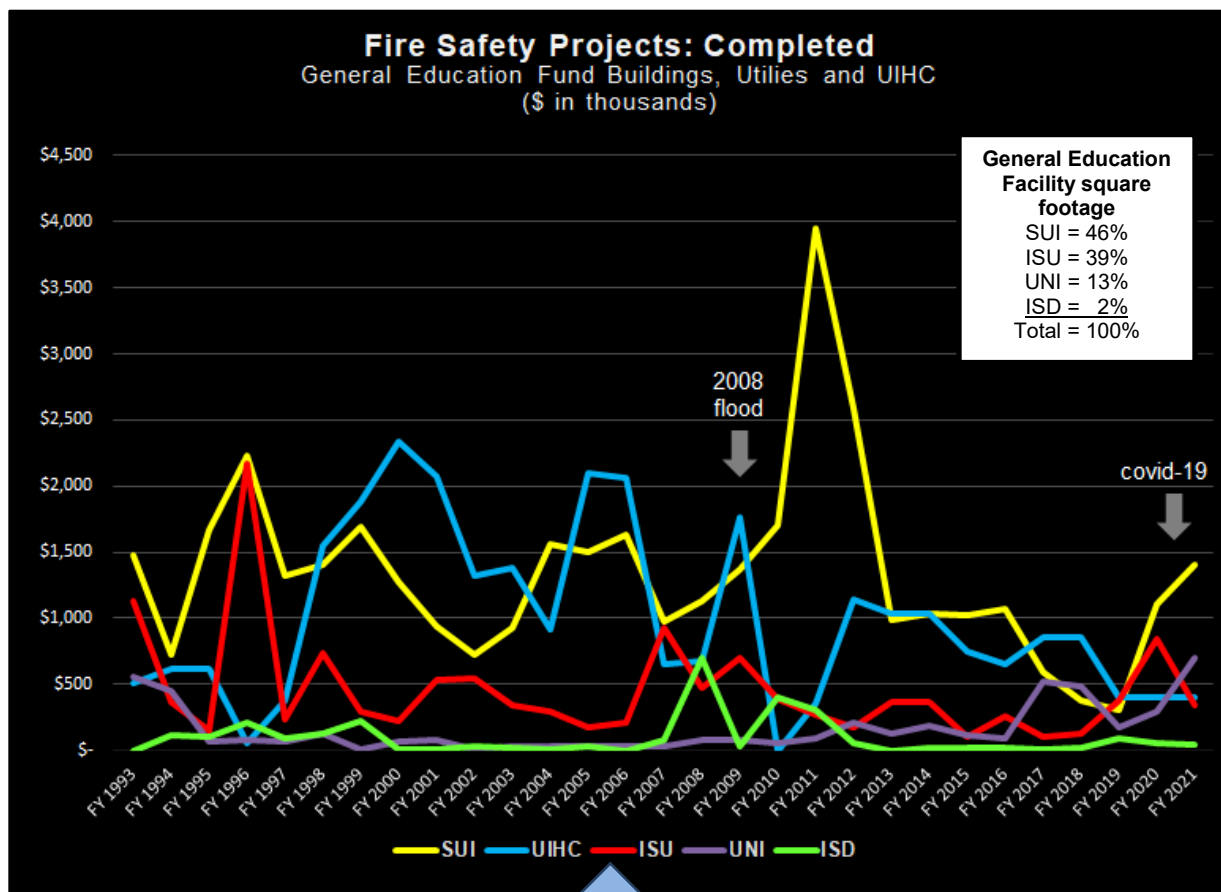
Environmental Safety: Environmental compliance at the institutions is overseen by IOSHA, Environmental Health and Safety (EH&S), Facilities Management personnel and the Office of Risk Management.

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 2021, Iowa State University spent \$468,311, down from last year's \$1.1 million, at 78 locations to abate asbestos in General Education Fund (GEF) facilities alone. ISU plans to spend another \$590,000 on GEF asbestos abatement in FY 2022.

a. Fire Safety Projects: Completed

Completing \$2.89 million in fire safety projects, the Regents exceeded their FY 2021 goal of completing \$2.8 million in General Education Fund facilities, utilities and UIHC projects. The last five-years have averaged \$2.1 million per year. Nearly \$2.4 million is planned for FY 2022.

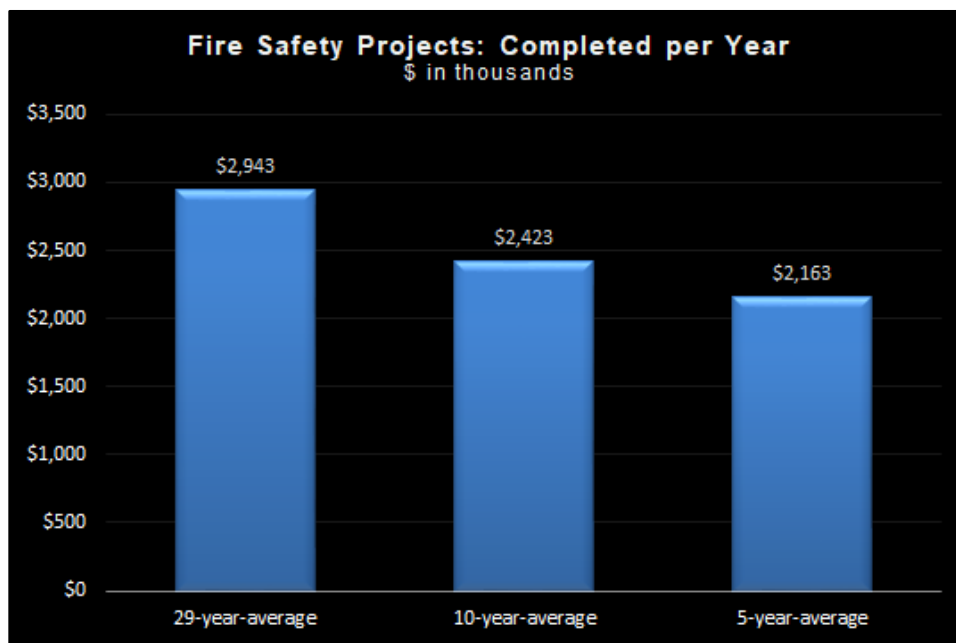


Source of Funds (\$ in thousands)*	SUI	UIHC	ISU	UNI	ISD	Total
Capital Appropriations	\$ 1,760	\$ -	\$ 1,437	\$ 175	\$ 935	\$ 4,307
Academic Building Revenue Bonds	3,150	-	2,994	826	-	6,971
Building Renewal / General University	20,968	-	7,404	2,939	1,008	32,319
University Services Overhead Use Fund	-	-	93	-	-	93
Treasurer's Temporary Investments (TTI)	10,821	-	543	175	-	11,538
UIHC Building Usage Funds	-	28,360	-	-	-	28,360
Utility Funds	564	-	396	1	793	1,754
Totals, over the last 29 years =	\$ 37,263	\$ 28,360	\$ 12,868	\$ 4,115	\$ 2,736	\$ 85,342
Completed Fire Safety Projects, annual average over the last 5 years =						\$2,163

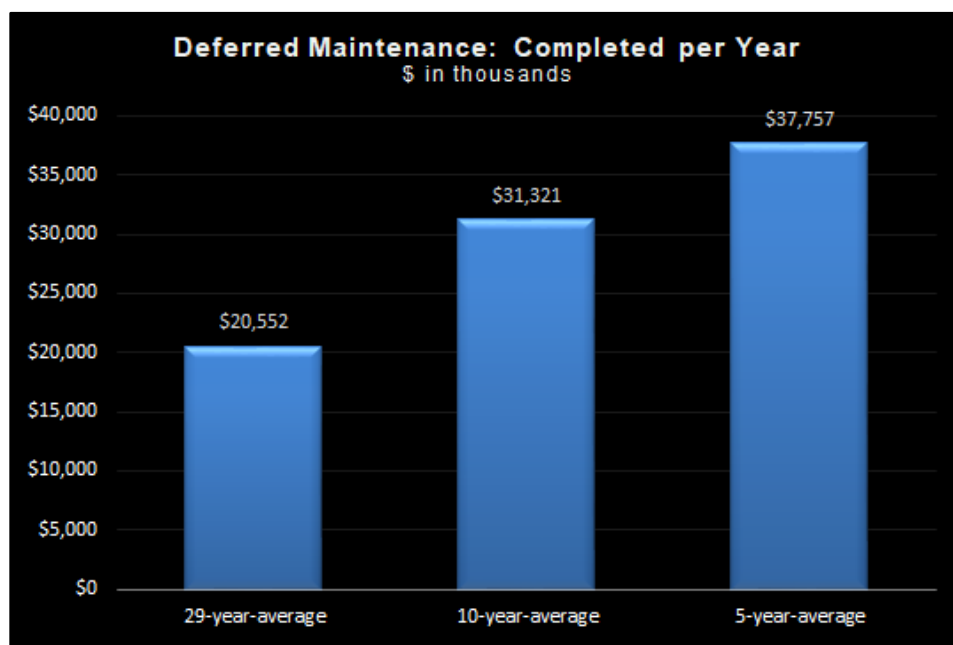
* Does not include fire safety improvements within major renovation projects.

As Regent institutions do a good job of correcting more and more fire safety issues over the last 29 years, more funds are available for deferred maintenance.

Comparison: Fire Safety and Deferred Maintenance



Completing deferred maintenance in General Education Fund building and utilities has dramatically improved 90% from its 29-year average of \$20 million per year to its 5-year average of \$38 million per year.



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.

Fire Safety Projects: Outstanding ¹					
General Fund Buildings and Utilities					
FY 2022					
(\$ in thousands)					
	SUI ²	ISU	UNI	ISD	Total
Fire Safety Projects	\$ 5,926	\$ 2,775	\$ 3,405	\$ 130	\$ 12,236
¹ Items identified by State Fire Marshal's Office, city officials and university officials; excludes pending demolitions and special State Fire Marshal waivers.					
² Does not include UIHC.					

This \$12.2 million in outstanding fire safety projects is a 32 percent increase from last year's \$9.2 million.

c. Comments from the Institutions on Fire Safety and Environmental Safety Projects

University of Iowa

Department of Public Safety (UIDPS) and Facilities Management's Fire and Life Safety Department (FM FLS) works to ensure compliance with fire safety codes in General Fund and other campus facilities. All plans and designs for new buildings, as well as renovation projects, are reviewed for code compliance and checked for outstanding fire safety deficiencies. When fire safety deficiencies need to be incorporated into a project, they are formally communicated to the project's design manager, and design professional in the early planning stages of projects. These individuals routinely consult with UIDPS and FM FLS to resolve challenges to fire safety deficiencies.

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, construction and 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 have mitigated the possibility of finding major deficiencies during future inspections. In addition, the Iowa City Fire Department (ICFD) conducts annual inspections of each campus building focusing on the prevention of fire incidents and becoming familiar with UI buildings for emergency response purposes. The ICFD inspection reports are categorized and corrections are made in 30 days after issuance to the user group or Facilities Management.

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

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 recent years, Facilities Management's Fire Safety Inspectors have identified minor fire code deficiencies during their normal monthly tours 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. These deficiencies are then corrected within a short timeframe.

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 most recent inspection was conducted in 2020. New inspections are currently underway as part of the next inspection report.

Currently 74 buildings are connected to the UI's "five-loop" fire notification network on campus. The network provides current building floor plans with all fire alarm devices, providing the UI Police communications center real time information on each networked building.

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

- *Fire Safety Deficiencies*

During FY 2021, \$341,443 (down 41% from last year) was expended for fire safety projects for General Fund facilities. In FY 2022, \$520,000 (up 16% from last year) 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 \$2,775,000 (down 3% from last year). This estimate includes the cost of adding sprinkler systems to five buildings to address fire corridor deficiencies cited in the 2019 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 renovating disturbs asbestos-containing material (ACM). Scheduling asbestos removal when buildings are being renovated has proven to be cost-effective and time-efficient, because the asbestos work is planned to coincide with other major disruptions in a building. During FY 2021, \$468,311 was expended for asbestos removal from General Fund facilities. In FY 2022, it is estimated that \$590,000 would be expended on asbestos abatement for General Fund facilities. The cost to remove all ACM from General Fund facilities is estimated to be \$6,100,000.

Asbestos removal not associated with renovation is managed under an operations and maintenance (O&M) program. ACM needing repair is submitted to Facilities Planning and Management (FP&M) where funds are identified for removal/repair. These repairs are required while asbestos is managed in place until major renovation projects can allow for the complete removal of the ACM.

- *Underground Storage Tanks*

Transportation Services operates and maintains two regulated underground storage tanks, the last remaining on University property. These double-wall fiberglass-reinforced plastic fuel tanks were installed in July 1988; the underground piping and distribution systems were completely replaced in August 2010. 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 these tanks incident-free for many years. No additional installations of underground tanks on University property are under consideration.

- *Polychlorinated Biphenyls (PCBs)*

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

The last 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 continues to segregate non-PCB-containing ballasts from PCB-containing ballasts, significantly reducing disposal costs. Any oil-filled equipment scheduled for decommissioning are tested for PCBs prior to removal.

University of Northern Iowa

The State Fire Marshal conducted fire prevention inspections in the vast majority of campus buildings in FY 2021.

- *Process Used to Ensure Fire Safety Deficiencies are Included in Renovation Projects*

During the initial design phase of a renovation project the Office of Risk Management and Environmental Health & Safety (EHS) collaborates with Facilities Management to ensure 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 ensure that fire safety deficiencies are addressed during the project. 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, which 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 (IOSHA), OSHA and the Environmental Protection Agency (EPA).

- *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 Iowa School for the Deaf in November 2020. The inspection is performed every two years.

- For FY 2021, ISD spent \$58,560 fire safety repairs in four separate buildings.
- For FY 2022, 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 ISU's Environmental Health and Safety (EH&S) staff recommending \$24,600 in asbestos removal. ISD's environmental review is conducted every three years.

- For FY 2021, ISD spent \$0 on asbestos abatement, down from last year's \$6,500.
- For FY 2022, ISD plans to spend \$45,000 for a security camera upgrade.

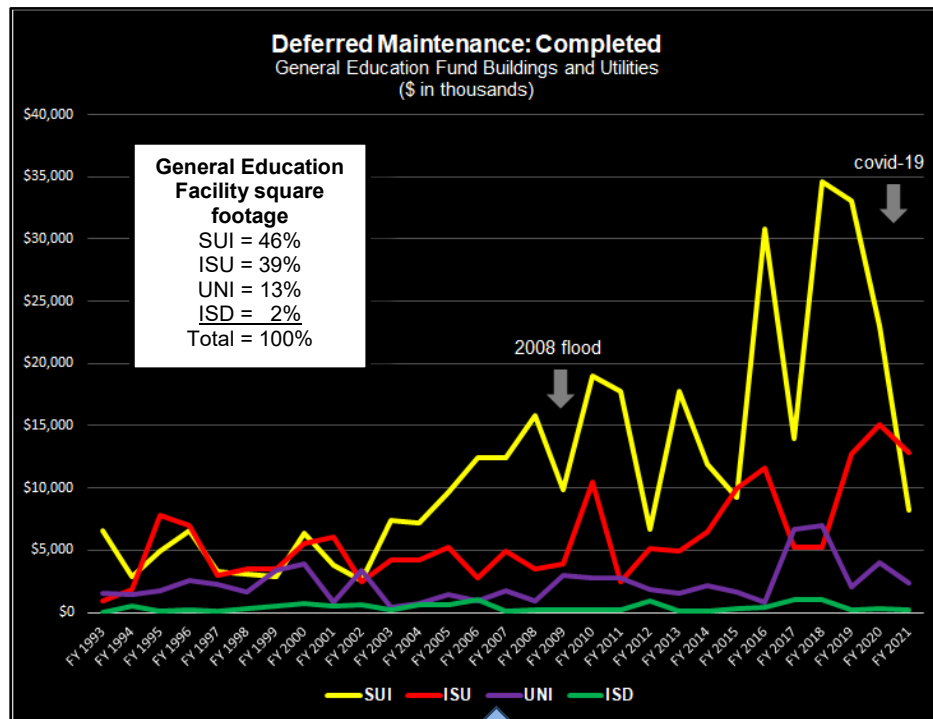
9. Deferred Maintenance

Deferred maintenance in higher education is not just a Regent issue, but a national problem. Regardless, the minimizing and elimination of deferred maintenance is a high priority for Regent institutions and the Board Office.

Definition of Deferred Maintenance:
“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

The Regents completed over \$23 million in deferred maintenance projects in FY 2021 in General Education Fund and utility projects. This is 38 percent below the 10-year average of \$31 million per year, primarily due the unprecedented financial impact of COVID-19. However, over \$55 million is planned for FY 2022.



Source of Funds (\$ in thousands) *	SUI	ISU	UNI	ISD	Total
Capital Appropriations	\$525	\$8,762	\$1,389	\$3,755	\$14,431
Special Appropriations	1,450	25			1,475
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	103,146	98,207	46,449	5,165	252,967
Building Renewal/Academic Building Revenue Bonds	340		84		424
Treasurer's Temporary Investment (TTI) Income	15,741	4,797	3,346		23,885
Gifts, Grants	865	5,286	1,872	224	8,247
Utility Renewal and Replacement and Revenue Bonds	182,631	29,144	2,597		214,372
Agriculture Experiment Station & Cooperative Extension		150			150
Facilities Overhead Use Allowance		9,005			9,005
Departmental Funds and combinations of above	15,452	7,159	5,312	2,686	30,610
Totals, over the last 29 years =	\$343,787	\$172,552	\$67,836	\$11,830	\$596,005
Completed Deferred Maintenance, annual average over the last 5 years =	\$37,757				

* Does not include deferred maintenance within major renovation projects.

b. Deferred Maintenance: Outstanding

Regent institutions continue to report over one billion in outstanding deferred maintenance in General Education Fund buildings and utilities. This includes renovation projects with deferred maintenance in the Five-Year Capital Plan for State Funds for FY 2023-FY 2027.

Deferred Maintenance: Outstanding General Fund Buildings and Utilities Fall 2021 (\$ in thousands)					
	SUI	ISU	UNI	ISD	Total
Individual					
Buildings ¹	\$312,552	\$490,454	\$161,970	\$1,665	\$966,642
Utilities	N/A	22,885	6,033	275	29,193
Subtotal	\$312,552	\$513,339	\$168,003	\$1,940	\$995,835
Included within Five Year Capital Plan (FY 2021 - FY 2025)					
Buildings ¹	\$84,225	\$31,717	\$42,459	\$0	\$158,401
Utilities	N/A	10,900	266	-	11,166
Subtotal	\$84,225	\$ 42,617	\$ 38,463	\$ -	\$ 169,567
Grand Total					
Buildings ¹	\$396,777	\$522,171	\$204,429	\$1,665	\$1,125,043
Utilities	-	33,785	6,299	275	40,359
Total	\$396,777	\$555,956	\$210,728	\$1,940	\$1,165,402

¹ Includes site work.

This \$1.1 billion in outstanding deferred maintenance is a 6% decrease over last year's \$1.24 billion. The decrease occurred through the sale of the Iowa Braille and Sight Saving School, several building demolitions, but mostly, a concerted effort by Regent institutions to focus on deferred maintenance and carry out multiple, smaller deferred maintenance projects.

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 RS Means' cost per square foot information, consultation with Sightlines and comparisons to similar Regent projects.

Since 1940, RS Means has been a construction cost warehouse used by contractors, architects, engineers and owners. Sightlines is a higher education consultant, who specializes in facilities operations, costs and capital investments. Both RS Means and Sightlines are owned by Gordian.

Specifically, our institutions 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.

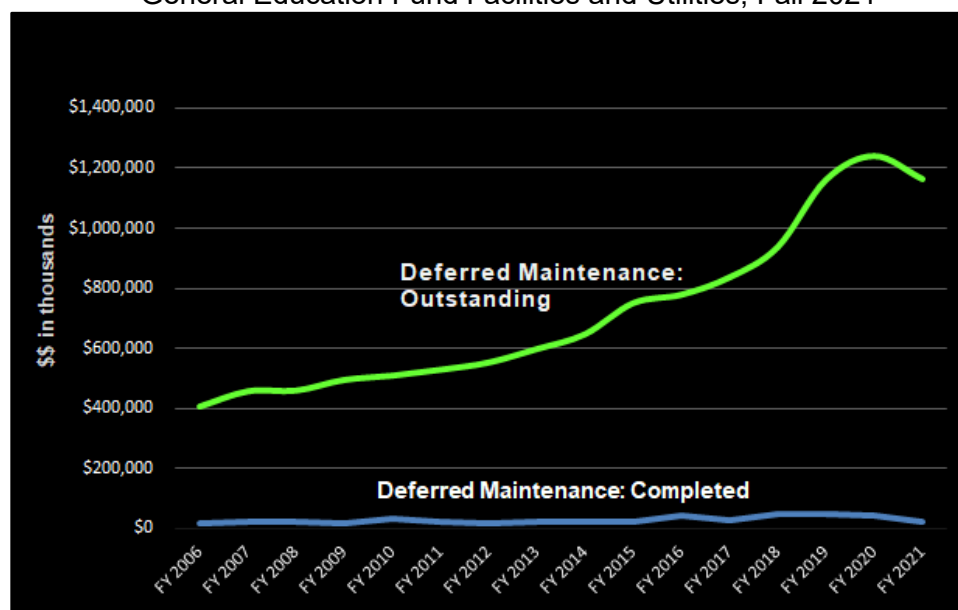
c. Deferred Maintenance Management and Budget Development

As stated in the Board's *Policy Manual*, institutions should annually budget 1.5% of a new facility's replacement value to fund its future deferred maintenance. This 1.5% is not intended fund our existing deferred maintenance backlog of \$1.1 billion for all Regent facilities.

To lower the \$1.1 billion backlog (see green line below), institutions have spent \$37 million per year over the last five years. To supplement that effort, the Board Office annually requests \$20 million per year in state funds. During the 2021 General Assembly, a special, one-time \$30 million request for state funds was made specifically for deferred maintenance, but was not funded.

d. Deferred Maintenance: Completed vs Outstanding

General Education Fund Facilities and Utilities, Fall 2021



e. 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 produce multiple overlapping deferred maintenance projects.
- **Fewer Students and Less Revenue:** It is well known that that US birthrates have been declining in the wake of the Great Recession of 2009, raising the prospect of fewer young people moving through any educational system. In addition, state and institutional funds are scarce, particularly in the wake of the 2020 coronavirus.

¹ Sightlines: 2020 State of Facilities in Higher Education

f. Deferred Maintenance: Institutional Comments

University of Iowa

General Education Fund Facilities

SUI had a 22% decrease in outstanding deferred maintenance from last year.

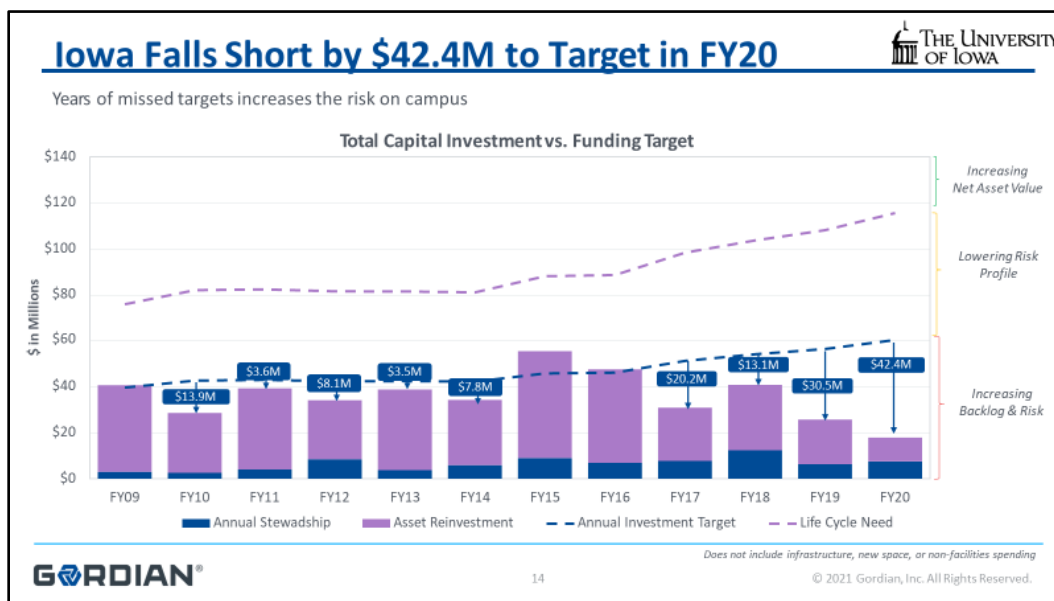
The condition of existing facilities, their functionality and their suitability to foster student success, research and discovery inform the use of various facilities stewardship strategies. These strategies include ongoing maintenance and operational care of existing facilities, reduction of deferred maintenance, and reinvestment in the renewal of long-term physical assets. In instances where facilities have become obsolescent and have substantial deferred maintenance, the university considers decommissioning or removal.

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.

The University of Iowa also uses a total cost of ownership evaluative framework when weighing the various alternatives that may include renovation, improvement, or demolition of existing facilities. The total cost of ownership framework includes all stewardship costs, including the initial project cost and on-going care, utilities and energy costs over the useful life of a facility. When renewal would not result in useful space configurations or would prolong the inefficient use of existing land, the UI may consider removing a building. In situations where building removal is considered, historical value and heritage are carefully weighed.

Beginning in 2004, the UI has contracted with third parties for periodic facilities condition assessments. This data is provided through the UI working with Sightlines, now named Gordian.



From FY09 through FY15, the UI maintained the generally good condition of its facilities at a consistent equilibrium, with rate of renewal in balance with the rate of deterioration. This changed in FY16, when the annual funding for these efforts was cut approximately in half. As evidenced in the chart, above, expenditures were buoyed by commitments made prior to FY16, but show the drop in FY17. Investments initiated after FY16 were closer to \$15 million annually, and funding has continued to decline with each passing year. In addition, we see a further reinvestment gap in FY20 due decreased funding and funds targeted to new facilities, i.e. the new College of Pharmacy Building and Psychological Brain Sciences Building. We anticipate this gap to shrink as the UI begins to renovate facilities as a part of Capital Plan.

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.

We are applying our newly developed matrix to align funding stewardship and determine priorities that would be based on a number of factors, including asset criticality, urgency, student success and operational impact. The University of Iowa is tracking the performance of its mission critical buildings that currently face the highest risk of failure. The UI Campus Development Team is reviewing those buildings to determine the course of action, the timeframe and any transitional space, if needed. The University of Iowa has developed an institutional specific project scoring matrix to be used in conjunction with the facility condition assessment database for objective scoring, prioritization, and alignment with institutional priorities.

➤ **University of Iowa Hospitals and Clinics**

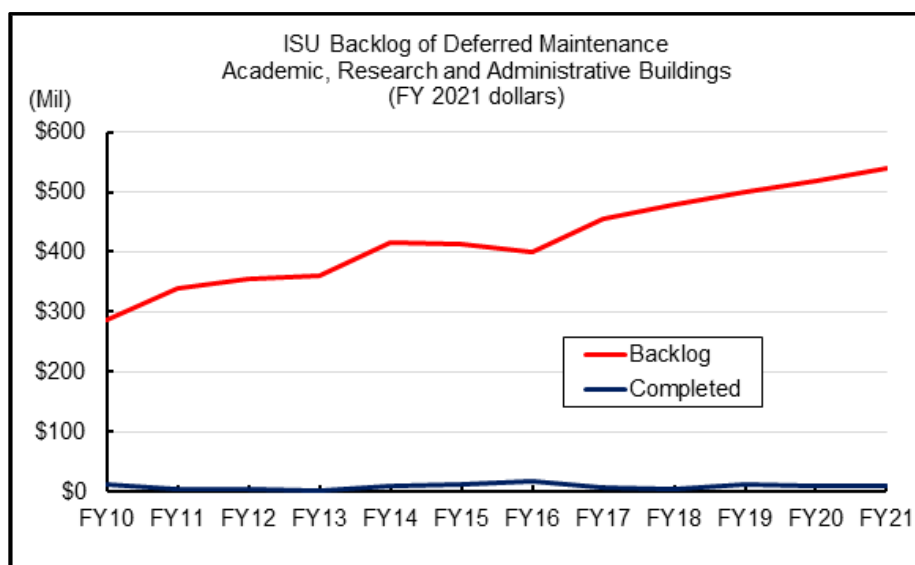
As a self-supporting auxiliary unit, the University of Iowa Hospitals and Clinics funds its own deferred maintenance repairs.

Iowa State University

General Education Fund Facilities and Utilities

ISU had a 6% increase in outstanding deferred maintenance from last year.

The deferred maintenance backlog is based upon a systematic process for identifying the maintenance and repair requirements for our general university buildings. The methodology involves assessing general fund buildings in nine different system categories (Envelope, HVAC, Roof, Window, Site, Electric, Plumbing, Interior, and Elevators). The assessment takes into account the replacement value of the building, age of the building, value of the systems within the building, age of the systems, and condition of those systems. The area maintenance team assigned to each building also provides a 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. Requirements are prioritized by the negative impact on teaching, research or outreach, situations that significantly compromise safety, or the 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.

- *Utility Deferred Maintenance*

Deferred maintenance associated with the utility auxiliary enterprise encompasses the central campus cogeneration plant, satellite heating and cooling plants, along with underground utility distribution systems. Portions of these systems are beyond 50-years old.

Utility rates are developed to generate funds for annual maintenance and repair budgets. Routine maintenance and major repairs / overhaul budgets are annually funded at \$3.5 million and \$3.0 million respectively. Major repair funds are first allocated to perform scheduled overhauls of turbines, boilers, chillers, and associated auxiliary equipment as required by the university's insurance carrier and to ensure reliable utility production. These overhauls cost \$500,000 to \$800,000 annually, depending upon what is scheduled for service. The remainder of the utility

repair funds are used to address ongoing planned repairs, deferred maintenance, and emergent repairs based on a priority ranking system.

This approach has been successful in maintaining the critical utility systems supporting campus operations in good, reliable and efficient operating condition. The utility backlog is approximately \$38.5 million, relative to a replacement value over \$585 million. The utility enterprise remains in the process of underground distribution system assessments to further develop scheduled replacement plans, which better align with available annual cash flows.

University of Northern Iowa

General Education Fund Facilities and Utilities

UNI had a 4% increase in outstanding deferred maintenance from last 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 has a backlog of \$210,727,677 in deferred maintenance, which is an increase of \$8,898,823 from the previous year. An increase in annual budgeted funds would be required to sustain an adequate maintenance schedule for campus buildings.

The University is striving to maintain its facilities on a building repairs budget of \$1,400,000. This is 0.11% of our \$1,268,332,137 estimated replacement value. The Board of Regents Policy Manual states that institutions should plan for an annual investment of approximately 1.5% of replacement value. 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.

The University has identified approximately \$25,396,558 in deferred maintenance projects in general fund facilities and utilities planned for or continued in FY 2022. Deferred maintenance projects completed in FY 2021 totaled \$2,361,576. Future projects would continue to be selected from the top 25 Deferred Maintenance list found in the 5 Year Capital Plan.

Iowa School for the Deaf

ISD's facilities are all General Education Fund Facilities and Utilities.

ISD had a 51% increase in outstanding deferred maintenance from last year (\$1.28M to \$1.94M).

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 would be eliminated through ISD's \$4.325 million Long Hall Renovation, ISD's high school.

Also, due to building age, 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

IBSSS's facilities are all General Education Fund Facilities and Utilities.

In October 2020, IBSSS was sold to the City of Vinton, removing over \$5 million in deferred maintenance from Regent backlogs.

g. Deferred Maintenance Analysis

The institutions are moving forward and developing strategies to fund both "keep up" and "catch up" with 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 institutions track the performance of its mission critical buildings that currently face the highest risk of failure to determine the best course of action.

Obviously, 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 "catch up" and "keep up" with 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.

h. Deferred Maintenance Recommendations¹

- 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.
- Continue to make tough decisions about facilities that do not further the institution's mission, provide a competitive edge or warrant additional investment. Plan where *not* to spend facility funds.

¹ Sightlines: 2017 *State of Facilities in Higher Education*