

Contact: John Nash

ANNUAL FACILITIES REPORT for 2019

Action Requested: Recommend that the Board approve the:

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Five-Year Capital Plans		
Including Capital Request for FY 2021	Decision	2
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Facilities Governance Report	Recommendation	18
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Section 1

FIVE-YEAR CAPITAL PLANS
including Capital Request for FY 2021

Executive Summary: Board action on any Five-Year Capital Plan does not constitute Board approval of any specific project, as those projects would be brought to the Board individually.

Quick Facts

Section 1

Five-Year Capital Plans for State Funds

- Capital Request for FY 2021 = \$ 40 million (page 3)
- Capital Request, 20-year average for the next fiscal year = \$ 74 million

- Capital Request for FY 2021 – FY 2025 = \$341 million
- Capital Request, 20-year average for the next five fiscal years = \$480 million

Section 2

Five-Year Capital Plan for UIHC

- Capital Plan for FY 2021 = \$ 41 million
- Capital Plan for FY 2021 – FY 2025 = \$624 million

Section 3

Five-Year Capital Plan for Other Funds

- Capital Plan for FY 2021 = \$120 million
- Capital Plan for FY 2021 – FY 2025 = \$828 million

Section 1, part 1 of 3



Five-Year Capital Plan for State Funds
Including Capital Request for FY 2021 (\$ in thousands)

Inst.	State-Funded Project	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5-Year State Request	Other, Private Funds	Total
SUI	Pentacrest Modernization	\$3,355	\$26,781	\$24,741	\$14,276	\$19,573	88,726	-	88,726
ISU	LeBaron/MacKay Complex	10,000	10,000	10,000	-	-	30,000	25,000	55,000
UNI	Industrial Technology Center Modernization	1,000 *	15,897	22,823	-	-	39,720	4,180	43,900
UNI	Learning Commons	-	-	3,481	14,264	49,925	67,670	-	67,670
ISD	Girls Dormitory HVAC / Electrical	4,823	-	-	-	-	4,823	-	4,823
ISD	Giangreco Hall - Exterior Rehabilitation	-	6,365	-	-	-	6,365	-	6,365
ISD	Giangreco Hall - Boys Dorm HVAC	-	-	3,294	-	-	3,294	-	3,294
IPR	Replace Transmission Equipment at WOI-TV and KSUI-FM	1,200	-	-	-	-	1,200	-	1,200
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 =		\$40,378	\$79,043	\$84,339	\$48,540	\$89,498	\$341,798	\$29,180	\$370,978

footnotes:

* The 2019 General Assembly already appropriated this \$1 million for FY 2021.

This proposed Five-Year Capital Plan for State Funds totals \$341 million in State funds, funded by State appropriations and/or Academic Building Revenue Bonds, and \$29 million in other or private funds for a total of \$370 million.

Of the \$341 million in State funds, \$241 million would be for major renovation projects and \$100 million would be for deferred maintenance, fire and environmental safety, campus security, regulatory compliance and energy conservation projects.

➤ **Board Approval**

The Iowa Code requires that the Board submit to the State its capital request for State funds for the upcoming fiscal year by October 1, 2019. Because of legislation enacted by the 2005 General Assembly, the Board is no longer required to submit an entire Five-Year Capital Plan for State Funds. However, consistent with the Board's focus on planning, a Five-Year Capital Plan for State Funds is submitted here for consideration.

Capital Requests for FY 2021
Project Descriptions

- **Pentacrest Modernization**
University of Iowa

FY 2021 State Request
\$3.35 million

\$30 million in deferred maintenance would be eliminated in MacBride, MacLean and Jessup Halls with this project.

	<u>Appropriations</u>	<u>Gifts & Donations</u>	<u>Total</u>
FY 2021	\$3,355,000	-	\$3,355,000
FY 2022	26,781,000	-	26,781,000
FY 2023	24,741,000	-	24,741,000
FY 2024	14,276,000	-	14,276,000
FY 2025	19,573,000	-	19,573,000
TOTAL	\$88,726,000	\$0	\$88,726,000

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

In alignment with the University’s priorities and to better serve students, the University is committed to dedicating use of the Pentacrest entirely to educational, academic and student-based purposes. This three-building project would address long-standing operational and programmatic obsolescence in buildings that have not been modernized since their original construction, roughly 100 years ago. In addition to securing long-term use and care of these most-important and symbolic buildings, this project positions student/academic functions at the very core of the UI campus.

Specifically, the Pentacrest Modernization project would move MacBride, MacLean and Jessup Halls from 67% classrooms and academic space to 100%. The \$30 million in deferred maintenance eliminated by this project is projected to rise to \$44 million in five years. The project would improve access for the mobility impaired, upgrade classrooms to current standards and provide new lighting and energy-efficient electrical systems. The building exteriors would be restored to retain their historical character. This project would also replace numerous inadequate and inefficient heating, ventilation and air conditioning (HVAC) systems with central, building-wide systems connected to the university central chilled water system.

Separate from this request for State funds, the University has expended, or would expend, an additional \$30 million to renovate University Capitol Center, Calvin Hall, Jefferson Building and other university spaces.

As an important part of the project, locating student and academic spaces and programs within the buildings, requires relocation of current non-academic units. Jessup Hall currently hosts a

majority of UI administrative offices and numerous student transactional functions. 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 for fully academic programs. A recently completed, UI-funded, project within the adjacent University Capitol Center (UCC/Mall) consolidated student transactional functions within a campus setting convenient to and often used by UI students. This transaction center shifts space use from Jessup Hall, helping to make the building ready to host academic functions.

Additionally, the UI is planning to repurpose and modernize the historic Calvin Hall (built in 1885 and directly north of the Pentacrest) and the Jefferson Building (built in 1913 and southeast of the Pentacrest) to host UI administrative offices and support services respectively. Those projects would take advantage of available space that does not serve classroom and student functions well. Interestingly, Calvin Hall used to be located where Jessup Hall is now, until it was moved in 1905 by horses to its current location.

The Pentacrest Modernization project's result would be centralization of student-oriented functions to the core of campus, modernization of multiple historic and important university buildings, a continuation of increased campus space-use efficiency and considerable reduction of pressing deferred maintenance.

Proposed Project Schedule

Planning	18 months
Bidding	3 months
Construction	38 months
Occupancy	1 month
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Total	60 months

➤ **LeBaron/MacKay Complex**
Iowa State University

FY 2021 State Request
\$10.0 million

\$5 million in deferred maintenance would be eliminated with this project.

	<u>Appropriations</u>	<u>Private Gifts</u>	<u>University Funds</u>	<u>Total</u>
FY 2021	\$10,000,000	5,000,000	-	\$15,000,000
FY 2022	10,000,000	5,000,000	5,000,000	20,000,000
FY 2023	10,000,000	5,000,000	5,000,000	20,000,000
FY 2024	-	-	-	-
FY 2025	-	-	-	-
TOTAL	\$30,000,000	\$15,000,000	\$10,000,000	\$55,000,000

For ISU’s College of Human Sciences (CHS), this project would replace LeBaron Hall (49,000 gross square feet) with a new building 70% larger, and renovate 6% of the adjoining MacKay Hall, built in 1911 with an addition in 1926. Built in 1958, LeBaron Hall has not been significantly renovated since its original construction.

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

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

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

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

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

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

Good common space, currently limited across all CHS facilities, would provide a sense of place, a community hub for students, faculty, staff and administration. The proposed new atrium and

circulation core would serve various purposes, including teaching and research space for the event management program, event space for the college and the University, and space for students to study independently and in groups.

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

Proposed Project Schedule

Planning	24 months
Bidding	2 months
Construction	30 months
Occupancy	2 months
<hr/>	<hr/>
Total	58 months

➤ **Industrial Technology Center**
University of Northern Iowa

FY 2022 State Request
\$15.9 million

\$10.1 million in deferred maintenance would be eliminated by this project.

	<u>Appropriations</u>	<u>Gifts & Donations</u>	<u>Total</u>
FY 2021	\$1,000,000 *	\$523,000	\$1,523,000
FY 2022	\$15,897,000	\$1,567,000	\$17,464,000
FY 2023	\$22,823,000	\$2,090,000	\$43,913,000
FY 2024	-		-
FY 2025	-		-
TOTAL	\$39,720,000	\$4,180,000	\$43,900,000

* \$1 million already appropriated for FY 2021 by the 2019 General Assembly

With \$1 million already appropriated by the 2019 General Assembly for FY 2021 for preliminary design, the request for State funds for the remainder of the project includes \$15.9 million for FY 2022 and \$22.8 million for FY 2023 for a three-year total of \$39.7 million.

Built in 1974, the Industrial Technology Center (ITC) is now programmatically obsolete, undersized and does not meet the 21st century demands of its educational programs. The proposed project would expand the facility by nearly 48,000 gross square feet and renovate just over 52,000 gross square feet.

The ITC project would greatly enhance UNI's ability to prepare teachers in STEM disciplines and to educate over 500 students in the fields of Construction Management, Electrical Engineering Technology, Graphic Technologies, Manufacturing Technology, Technology Education, Technology Management and Graduate Programs. These programs are designed to prepare students to meet the needs of Iowa's workforce and to provide broad experience in technology, construction and manufacturing.

The Industrial Technology Center project aligns well with the Iowa Department of Education's Initiative Career and Technical Education (CTE) program, which develops teachers to teach secondary school students, and educate the workforce in industrial and construction fields. Industrial and construction fields have become increasingly important to the economic development of the State of Iowa.

At the ITC, the Department of Technology is uniquely positioned to support of two other areas of the Initiative Career and Technical Education program; 1) Information Solutions and 2) Applied Sciences, Technology, Engineering and Mathematics. ITC Department of Technology graduates fill an important workforce gap between the technical skills of the community college graduate and the design and engineering graduate of larger universities.

Proposed Project Schedule

Planning	12 months
Bidding	3 months
Construction	20 months
Occupancy	2 months
<u>Total</u>	<u>37 months</u>

➤ **Girls Dormitory HVAC & Electrical**
Iowa School for the Deaf

FY 2021 State Request
\$4.82 million

\$3.8 million in deferred maintenance would be eliminated by this project.

	<u>Appropriations</u>	<u>Gifts & Donations</u>	<u>Total</u>
FY 2021	\$4,822,675	-	\$4,822,675
FY 2022	-	-	-
FY 2023	-	-	-
FY 2024	-	-	-
FY 2025	-	-	-
TOTAL	\$4,822,675	\$0	\$4,822,675

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

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

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

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

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

Proposed Project Schedule

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

- **Replace Transmission Equipment at WOI-FM and KSUI-FM** FY 2021 State Request
Iowa Public Radio \$1.2 million

\$1.2 million in deferred maintenance would be eliminated by this project.

	<u>Appropriations</u>	<u>Gifts & Donations</u>	<u>Total</u>
FY 2021	\$1,200,000	-	\$1,200,000
FY 2022	-	-	-
FY 2023	-	-	-
FY 2024	-	-	-
FY 2025	-	-	-
TOTAL	\$1,200,000	\$0	\$1,200,000

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

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

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

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

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

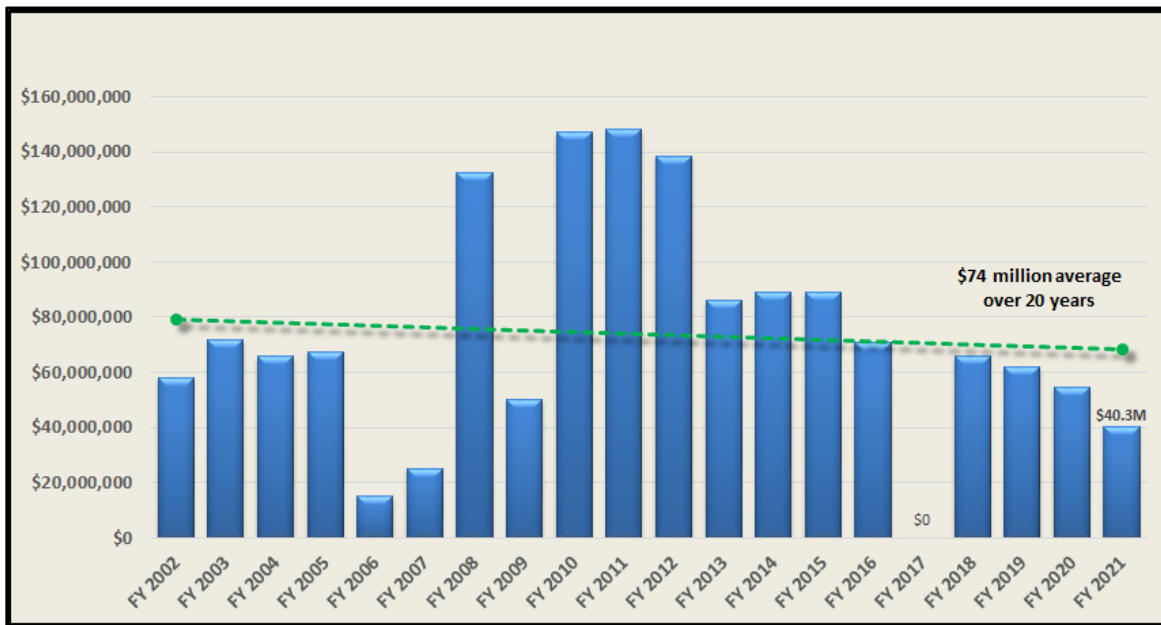
In 2015, this station’s transmission line failed catastrophically making it inoperable for several weeks, until repairs were complete. The station did, however, have a lower-powered backup site, which continued service temporarily to Cedar Rapids and Iowa City only. Even though the line was repaired,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

Proposed Project Schedule

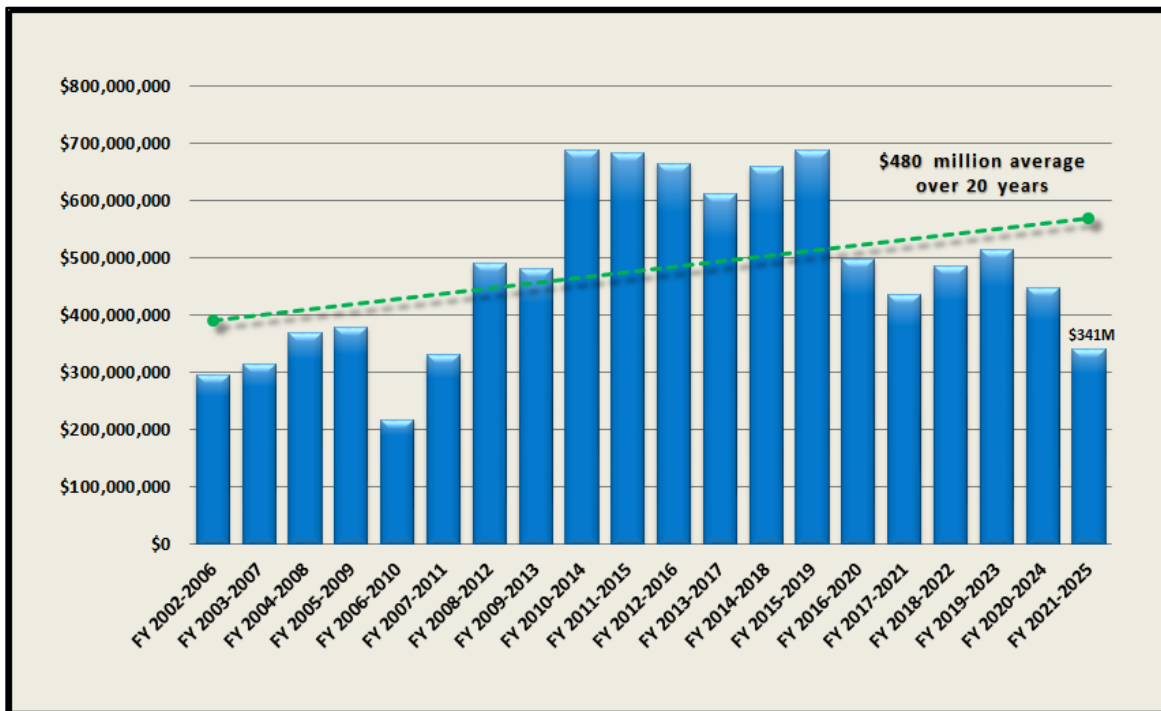
Planning	3 months
Bidding	1 months
Construction	8 months
Total	12 months

➤ Capital Requests for State Funds: History

State Fund Requests, First Year Only



State Fund Requests, All Five Years



Section 1, part 2 of 3

Five-Year Capital Plan for UIHC

This Five-Year Capital Plan for University of Iowa Hospitals and Clinics projects for FY 2021-FY 2025 for \$624 million is up 58% from last year's plan for \$394 million. It is funded by building usage funds (patient-generated revenues), gifts 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. Those FY 2021 – FY 2025 UIHC projects are as follows:



**FIVE-YEAR CAPITAL PLAN for UIHC
FY 2021 - FY 2025 *
(\$ in thousands)**

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total	Source of Funds
Fire and Environmental Safety							
Facility Wide Improvements to Meet Accreditation/Regulatory Requirements	\$ 650	\$ 750	\$ 750	\$ 750	\$ 750	\$ 3,650	9
Fire Protection Systems Replacement / Enhancements (multiple projects)	400	400	400	400	500	2,100	9
	\$ 1,050	\$ 1,150	\$ 1,150	\$ 1,150	\$ 1,250	\$ 5,750	
New Facilities							
Orthopedics Hospital and Emergency Department	\$ 15,000	\$ 40,000	\$ 63,000	\$ 109,000	\$ 78,000	\$ 305,000	9,11
	\$ 15,000	\$ 40,000	\$ 63,000	\$ 109,000	\$ 78,000	\$ 305,000	
RENOVATION							
UIHC Electrical Power Enhancements (multiple projects)	\$ 7,000	\$ 6,275	\$ 3,525	\$ 3,080	\$ 6,300	\$ 26,180	9
UIHC Facilities Enhancement Program (multiple projects)	5,000	10,000	10,000	10,000	10,000	45,000	9
UIHC Facility Infrastructure Investment (multiple projects)	12,500	18,600	20,400	20,100	-	71,600	9
Renovation of Diagnostic & Therapeutic Imaging Labs(multiple projects)	350	350	350	400	650	2,100	9, 11
Renovation & Replacement of Equipment for Cardiac Catheterization Labs	-	5,700	3,500	3,850	-	13,050	9
Renovation of Levels 1 and 2 JPP for Inpatient Psychiatry	-	5,000	13,850	11,000	-	29,850	9,11
Single Bed Inpatient Room Conversions & Expansions (multiple projects)	-	4,500	30,000	60,000	30,200	124,700	9, 11
Pneumatic Tube System Supplementation (multiple projects)	-	-	500	500	500	1,500	9
Subtotal =	\$ 24,850	\$ 50,425	\$ 82,125	\$ 108,930	\$ 47,650	\$ 313,980	
Total =	\$ 40,900	\$ 91,575	\$ 146,275	\$ 219,080	\$ 126,900	\$ 624,730	

Source of Funds:

- | | | |
|--|--|---|
| 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 Building Usage Funds |
| 3 Treasurer's Temporary Investments (TTI) Income | 7 Iowa DOT (Road Use Tax Funds) | 11 UIHC Bonds |
| 4 Gifts and Grants | 8 Student Health Fees | |

* 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 2021-2025 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 fiscal years 2021-2025. It does not include projects with previously approved budgets that will have expenditures during the FY 2021-2025 period.

Section 1, part 3 of 3

Five-Year Capital Plan for Other Funds

The following Five-Year Capital Plan for Other Funds is for a total of \$828 million for all three universities. This amount is down 23% from last year.

Other Funds are financed from sources other than State and UIHC funds. More specifically, Other Funds include operating budget building repair funds, income from treasurer’s temporary investments, auxiliary service or enterprise bond funds (utility, telecommunications and residence systems), Iowa Department of Transportation Institutional Roads program, gifts, grants and departmental renewal and replacement funds.

Five-Year Capital Plan for Other Funds: Summary
(\$ in thousands)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
SUI	\$ 35,436	\$ 74,907	\$ 108,539	\$ 118,947	\$ 81,292	\$ 419,121
ISU	53,756	79,936	59,416	20,831	17,211	231,150
UNI	30,957	32,954	27,191	44,635	42,739	178,477
Total	\$120,149	\$187,797	\$195,146	\$184,413	\$141,242	\$828,747 *

* Down 23% from last year's \$1,070,254.



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

University of Iowa	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Five Year Total	Source of Funds
UTILITY IMPROVEMENTS							
Rebuild Currier Steam Tunnel from Jefferson to Bloomington	\$ -	\$ 6,000	\$ 4,000	\$ -	\$ -	\$ 10,000	5, 6
North Chiller Plant Phase 2	-	4,000	3,000	-	-	7,000	5, 6
Power Plant Replace Fuel Handling Conveyor	3,000	-	-	-	-	3,000	5, 6
Electrical Duct Bank from IATL to Hancher Footbridge	1,000	-	-	-	-	1,000	5, 6
Water Plant - Improvements & New River Water Intake	-	2,000	-	-	-	2,000	5, 6
Install Biomass Fuel Storage Capacity	-	1,000	-	-	-	1,000	5, 6
Replace Condensate from WL to CPHB Tunnel	-	1,500	-	-	-	1,500	5, 6
Central Emergency Back-up Power - Phase 2 Main Campus	-	-	10,000	-	-	10,000	5, 6
North Chiller Plant Expansion	-	-	-	16,000	-	16,000	5, 6
Replace Steam and Condensate OPP to MTF Vault	-	-	-	1,000	-	1,000	5, 6
Install Boiler at West Campus Boiler location	-	-	-	-	15,000	15,000	5, 6
Campus Infrastructure - Renewal & Improvements	4,200	2,950	-	1,600	200	8,950	5, 6
Subtotal =	\$ 8,200	\$ 17,450	\$ 17,000	\$ 18,600	\$ 15,200	\$ 76,450	
NEW CONSTRUCTION							
College of Public Health Consolidation	\$ -	\$ 5,000	\$ 20,000	\$ 10,000	\$ -	\$ 35,000	4, 5
IIHR Facility	-	1,750	10,000	5,300	-	17,050	
NADS Addition	-	-	-	1,000	6,500	7,500	4, 5
Subtotal =	\$ -	\$ 6,750	\$ 30,000	\$ 16,300	\$ 6,500	\$ 59,550	
RENOVATIONS							
Athletic Facilities - Renewal & Improvements	\$ 2,000	\$ 500	\$ 1,450	\$ 7,000	\$ 8,000	\$ 18,950	4, 6
Bowen Science Building - Renovate 4th Floor, All Cores, Phase 1	-	-	-	-	7,077	7,077	4, 5
Bowen Science Building - Renovate 6th Floor, All Cores	-	-	-	4,246	5,066	9,312	4, 5
Calvin Hall - Renovate	-	600	6,150	2,000	-	8,750	6
College of Medicine Facilities - Renewal & Improvements	520	541	563	585	608	2,817	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	10,610	8,720	7,260	500	-	27,090	6
Jefferson Building - Modernization	3,000	8,000	-	-	-	11,000	3
Library - Modernization	-	4,000	22,000	22,000	6,600	54,600	3, 4, 5
Old Capitol - Repair West Terrace	-	2,500	-	-	-	2,500	2
Old Museum of Art - Revitalization	-	-	1,500	15,000	-	16,500	4
Telecommunications - Renewal & Improvements	3,100	3,100	3,100	3,100	3,100	15,500	5
University Capitol Centre - Renovate for Student Services	-	4,000	750	-	-	4,750	3, 4, 5
Westlawn - Raze	-	3,500	-	-	-	3,500	2, 3
Subtotal =	\$ 19,230	\$ 35,461	\$ 42,773	\$ 69,431	\$ 33,451	\$ 200,346	
PARKING / INSTITUTIONAL ROADS							
Institutional Roads Program	\$ 816	\$ 816	\$ 816	\$ 816	\$ 816	\$ 4,080	7
Parking System - Renewal & Improvements	2,490	2,030	2,950	1,300	1,325	10,095	5, 6
Reconstruct Lot 33/Dental Patient Visitor Lot	2,200	-	-	-	-	2,200	5, 6
Reconstruct Lot 40/44	-	2,400	-	-	-	2,400	5, 6
East Campus New Ramp Construction	2,500	10,000	10,000	2,500	-	25,000	5, 6
Hospital Ramp 1 Replacement	-	-	5,000	10,000	10,000	25,000	5, 6
IMU Facility Replacement	-	-	-	-	14,000	14,000	5, 6
Subtotal =	\$ 8,006	\$ 15,246	\$ 18,766	\$ 14,616	\$ 26,141	\$ 82,775	
SUI Total =	\$ 35,436	\$ 74,907	\$ 108,539	\$ 118,947	\$ 81,292	\$ 419,121	

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 2021	FY 2022	FY 2023	FY 2024	FY 2025	Five Year Total	Source of Funds
FIRE & ENVIRONMENTAL SAFETY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
DEFERRED MAINTENANCE	-	-	-	-	-	-	
CAMPUS SECURITY	-	-	-	-	-	-	
UTILITY IMPROVEMENTS							
Power Plant Station Power Replacement	\$ -	\$ 1,900	\$ 2,900	\$ 1,650	\$ 1,100	\$ 7,550	6
Power Plant - Desuperheating Water Improvements	400	-	-	-	-	400	6
Power Plant- Generator Overhauls	-	-	-	600	600	1,200	
Oil Switch Replacement	200	200	200	200	200	1,000	6
High Voltage Cable Replacement	200	200	200	200	200	1,000	6
Steam Tunnel Repairs	200	200	200	200	200	1,000	6
Sanitary Sewer Repairs	200	200	200	200	200	1,000	6
Subtotal =	\$ 1,200	\$ 2,700	\$ 3,700	\$ 3,050	\$ 2,500	\$ 13,150	
NEW CONSTRUCTION							
Curtiss Farm- Feed Mill and Grain Science Complex	\$ 5,000	\$ 11,200	\$ 5,000	\$ -	\$ -	\$ 21,200	4
Complex for Advanced Packaging Research	5,000	5,000	-	-	-	10,000	4
Southwest Recreation Complex-Challenge Course	-	-	-	-	1,200	1,200	6
Hilton Concourse							
Private Funds	-	3,000	3,000	-	-	6,000	4
Auxiliary Funds	-	9,500	9,500	-	-	19,000	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 =	\$ 15,000	\$ 33,700	\$ 22,480	\$ -	\$ 3,525	\$ 74,705	
RENOVATIONS							
Swine Teaching and Research	\$ 1,500	\$ 3,000	\$ 3,000	\$ -	\$ -	\$ 7,500	4
Memorial Union	5,000	6,000	-	-	-	11,000	6
Memorial Union- Second Floor Student Lounge	500	500	-	-	-	1,000	6
Memorial Union- Third Floor Wayfinding, Student Lounge/Study Space	-	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 Facade	4,500	-	-	-	-	4,500	5
Hamilton Hall - Renovations for Greenlee School of Journalism	750	-	-	-	-	750	4
Lagomarcino Hall - Renovation for Psychology	-	1,115	-	-	-	1,115	4
Remodeling for Birch/Spruce ISD personnel	300	-	-	-	-	300	5
Communications Bldg. - Remodel studio space for BPMI program	-	-	400	-	-	400	5
Ross Hall - Develop multi-departmental reception area	-	-	400	-	-	400	5
Catt Hall - Remodel Student Services area (first floor)	-	-	-	250	-	250	5
Gilman Hall - Remodel for Computational Chemistry faculty	-	-	-	400	-	400	5
Gilman Hall - Remodel for other faculty/staff	-	-	-	400	-	400	5
Gerdin - Remodel of UG & Grad programs & Career Services	-	1,650	-	-	-	1,650	4
Selected Building Demolition	800	800	-	-	-	1,600	6
Union Drive Marketplace Phase 2	2,000	-	-	-	-	2,000	6
Union Drive Marketplace Dishroom	500	-	-	-	-	500	6
Design Café Renovation	1,650	-	-	-	-	1,650	6
Courtyard Café Renovation	300	-	-	-	-	300	6
Memorial Union Market Phase 2 Renovation	250	-	-	-	-	250	6
Westside Market Phase 2 Renovation	250	-	-	-	-	250	6
Conversations Life Cycle Refresh	-	1,000	-	-	-	1,000	6
Seasons Life Cycle Refresh	-	-	1,200	-	-	1,200	6
Friley Windows Life Cycle Refresh	-	-	-	750	-	750	6
Subtotal =	\$ 22,300	\$ 27,615	\$ 17,100	\$ 2,150	\$ -	\$ 69,165	
TELECOMMUNICATIONS							
	\$ 5,195	\$ 4,160	\$ 3,950	\$ 3,920	\$ 3,500	\$ 20,725	6
Subtotal =	\$ 5,195	\$ 4,160	\$ 3,950	\$ 3,920	\$ 3,500	\$ 20,725	
PARKING / INSTITUTIONAL ROADS							
Institutional Roads Program	\$ 816	\$ 816	\$ 816	\$ 816	\$ 816	\$ 4,080	7
Annual Parking Lot Pavement Preservation	2,850	1,850	2,400	2,000	2,000	11,100	6
Subtotal =	\$ 3,666	\$ 2,666	\$ 3,216	\$ 2,816	\$ 2,816	\$ 15,180	
RESIDENCE SYSTEM							
Friley Residence Hall-Roof Replacement Phase 1 thru 2 of 2	2,450	2,450	-	-	-	4,900	6
Deferred Maintenance (Residence Halls only)	395	395	395	395	395	1,975	6
Frederiksen Court-Life Cycle Paint and Carpet	950	100	950	950	950	3,900	6
Various Fire Alarm Upgrades	-	250	75	-	-	325	6
Various Life Cycle Paint & Corridor Flooring	-	-	-	-	125	125	6
Friley Residence Hall-Bathroom Improvements Phases 1 thru 4 of 4	2,600	5,900	4,250	4,250	-	17,000	6
Helser Residence Hall-Bathroom Improvements Phases 1 thru 3 of 3	-	-	3,300	3,300	3,400	10,000	6
Subtotal =	\$ 6,395	\$ 9,095	\$ 8,970	\$ 8,895	\$ 4,870	\$ 38,225	
ISU Total =	\$ 53,756	\$ 79,936	\$ 59,416	\$ 20,831	\$ 17,211	\$ 231,150	

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)

University of Northern Iowa	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Five Year Total	Source of Funds
FIRE & ENVIRONMENTAL SAFETY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
DEFERRED MAINTENANCE	-	-	-	-	-	-	
CAMPUS SECURITY	-	-	-	-	-	-	
UTILITY IMPROVEMENTS							
Steam Distribution System Replacement Phase 2 - West Campus	\$ 6,050	\$ 3,025	\$ -	\$ -	\$ -	\$ 9,075	6
Cooling Tower Replacement	2,554	-	-	-	-	\$ 2,554	6
Power Plant Boiler #3 Electrical Infrastructure	1,300	-	-	-	-	\$ 1,300	6
Steam Distribution System Replacement Phase 2 - South Campus & Cross Campus Connection	-	3,389	3,389	-	-	\$ 6,777	6
Subtotal =	\$ 9,904	\$ 6,414	\$ 3,389	\$ -	\$ -	\$ 19,706	
NEW CONSTRUCTION	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Subtotal =	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
RENOVATIONS							
Industrial Technology Center Modernization (Private funds portion)	\$ 523	\$ 1,567	\$ 2,090	\$ -	\$ -	4,180	1, 4
Maucker Union Modernization	-	-	3,000	19,000	18,000	40,000	4, 6
Gallagher Bluedorn Performing Arts Center Addition	8,000	6,360	-	-	-	14,360	4
Football Team Room	1,470	-	-	-	-	1,470	
Basketball/Volleyball Practice Facility	-	14,025	14,024	-	-	28,049	4
Outdoor Turf - Football Practice Field	1,646	-	-	-	-	1,646	4
Outdoor Soccer Field	-	-	-	1,646	-	1,646	4
UNI-Dome Restroom and Club Boxes	-	-	-	20,000	20,000	40,000	4
Building Repair	1,400	1,400	1,400	1,400	1,400	7,000	2
Subtotal =	\$ 13,039	\$ 23,352	\$ 20,514	\$ 42,046	\$ 39,400	\$ 138,351	
PARKING / INSTITUTIONAL ROADS							
Institutional Roads	\$ 414	\$ 414	\$ 414	\$ 414	\$ 414	\$ 2,070	7
Parking Lot Rehabilitation	350	175	175	175	175	1,050	10
Subtotal =	\$ 764	\$ 589	\$ 589	\$ 589	\$ 589	\$ 3,120	
RESIDENCE SYSTEM							
Noehren Hall Student Room Remodel Phase 2	\$ 1,500	\$ -	\$ -	\$ -	\$ -	1,500	6
Noehren Hall Student Room Phase 3	5,750	1,500	-	-	-	7,250	6
Residence System - ResNet Upgrades	-	1,100	\$ 1,200	500	-	2,800	6
Dormitory Vanity and Sanitary Piping Replacement	-	-	1,500	1,500	2,750	5,750	6
Subtotal =	\$ 7,250	\$ 2,600	\$ 2,700	\$ 2,000	\$ 2,750	\$ 17,300	
UNI Total =	\$ 30,957	\$ 32,954	\$ 27,191	\$ 44,635	\$ 42,739	\$ 178,477	

Source of Funds Key:

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

END OF
FIVE-YEAR CAPITAL PLANS

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Section 2

FACILITIES GOVERNANCE REPORT

Executive Summary: The annual Facilities Governance Report, 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.

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

Quick Facts

Size, Age and Value of Facilities

- Acres, total = 4,586 on-campus + 769 off-campus = 5,355 acres
- Square footage, total = 41 million gross square feet (19 million for GEF)
- Building age, average = 41 years
- Funds spent per year (All Funds) = \$ 393 million (10 year average)
- Replacement value, GEF facilities = \$ 10 billion
- Replacement value, all facilities = \$ 20 billion

Fire Safety (General Education facilities only)

- Completed, total = \$ 87.7 million (over 26 years)
- Completed per year, average = \$ 3.4 million (\$87.7 million over 26 years)
- Completed in FY 2019 = \$ 1.3 million
- Planned for FY 2020 = \$ 2.9 million
- Outstanding, total = \$ 9.6 million*

Deferred Maintenance (General Education Fund facilities only)

- Completed, total = \$ 1.12 million (over 26 years)
- Completed per year, average = \$ 43 million (\$1.12 million over 26 years)
- Completed in FY 2019 = \$ 48 million
- Planned for FY 2020 = \$ 75 million
- Outstanding, total = \$ 1.16 billion*

* \$20 million per year in State funds have been requested in the "Five-Year Capital Plan for FY 2021 - FY 2025" to address some outstanding fire safety and deferred maintenance.

Background:
Section 2, part 1 of 6

Size, Age and Value of Facilities

a. Acres: The Regents have a total of 4,586 on-campus acres and 769 off-campus acres, excluding farm acreage, for a total of 5,355 acres.

b. Square Footage: The Regents have 41 million gross square feet with a replacement value or net present value of \$20 billion. Of that square footage, 19 million square feet is General Education Fund (GEF) facilities with a replacement value of \$20 billion. The following charts shows when that square footage was constructed over the last 90 years.

Gross Square Footage (GSF)	Academic/Research/ Administrative (GEF) only*		All Regent Facilities	
	GSF of Intial Construction	Percent of Total	GSF of Intial Construction	Percent of Total
Years				
Pre-1930	3,704,657	19%	5,227,894	13%
1931-1950	770,454	4%	1,552,458	4%
1951-1960	656,238	3%	1,961,470	5%
1961-1970	2,801,443	15%	7,085,401	17%
1971-1980	3,295,711	17%	5,405,163	13%
1981-1990	1,575,083	8%	3,603,996	9%
1991-2000	2,083,293	11%	4,946,753	12%
2001-2010	2,423,411	13%	5,789,532	14%
2011 - present	1,779,189	9%	5,510,454	13%
Total	19,089,479	100%	41,083,121	100%
	46%			
	of total			

*Includes Oakdale

● First Wave of Construction (32%)

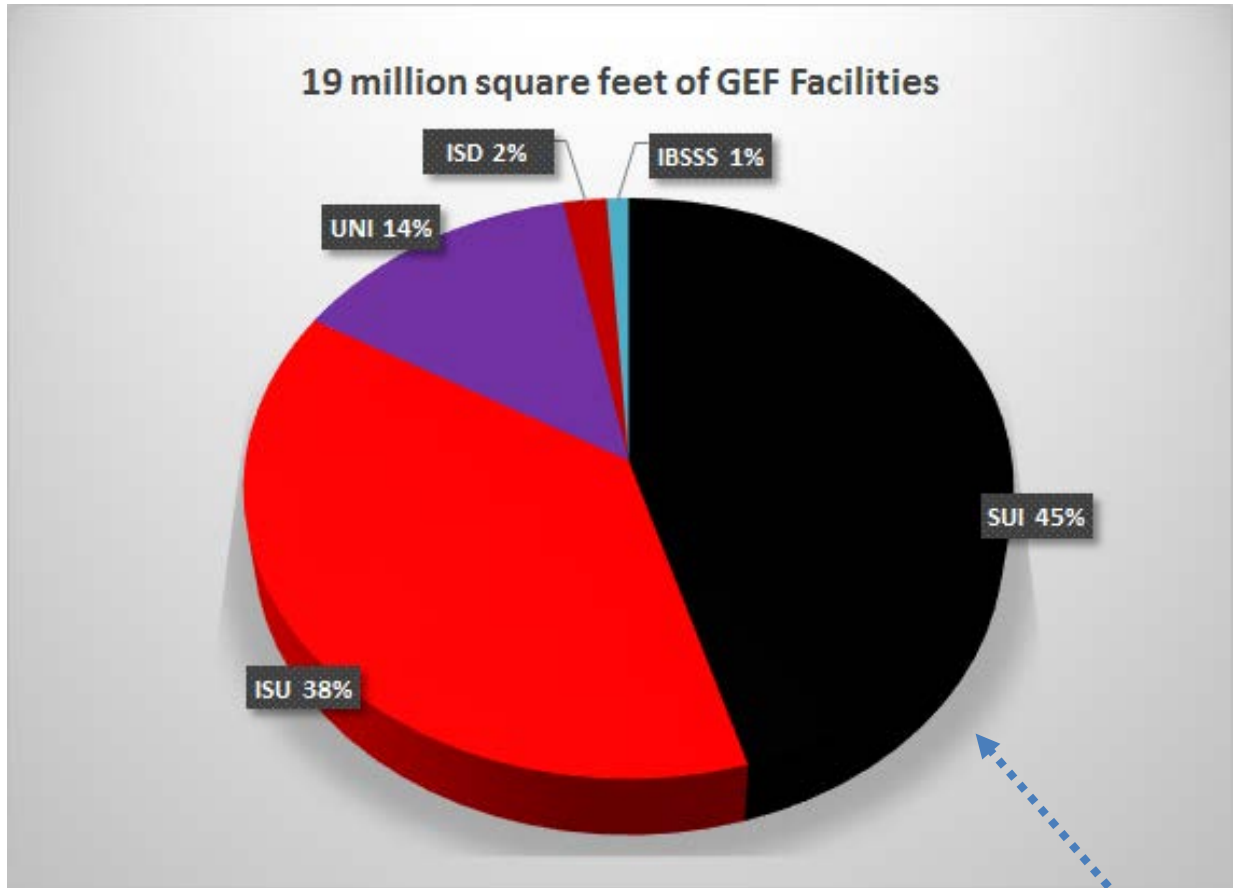
● Second Wave of Construction (33%)

➤ **Square Footage determines Replacement Value, which sets Deferred Maintenance budgets**

Replacement value of facilities is important, as it determines appropriate budgets for deferred maintenance. According to national standards, a minimum of 1.0 percent of replacement value should be budgeted for deferred maintenance to prevent future facility deterioration or \$100 million (1% of \$10 billion GEF facilities replacement value).

To attain national standards and minimize the Regents' \$1.16 billion in outstanding deferred maintenance, the Board of Regents *Policy Manual* states that institutions should budget approximately 1.5 percent of GEF facilities' replacement value for deferred maintenance or \$150 million (1.5% of \$10 billion in GEF facilities' replacement value).

The Regents spent \$43 million per year (0.43% of \$10 billion in GEF facilities' replacement value) on deferred maintenance over the last 26 years or nearly a third of Board policy. Lack of funds, enrollment increases (enrollment increased 14% from 2008 to 2017) and the age of Regent facilities (41-year average) have created significant challenges in attaining the 1.5% budgeting goal.



Regent Square Footage
by Institution and Use

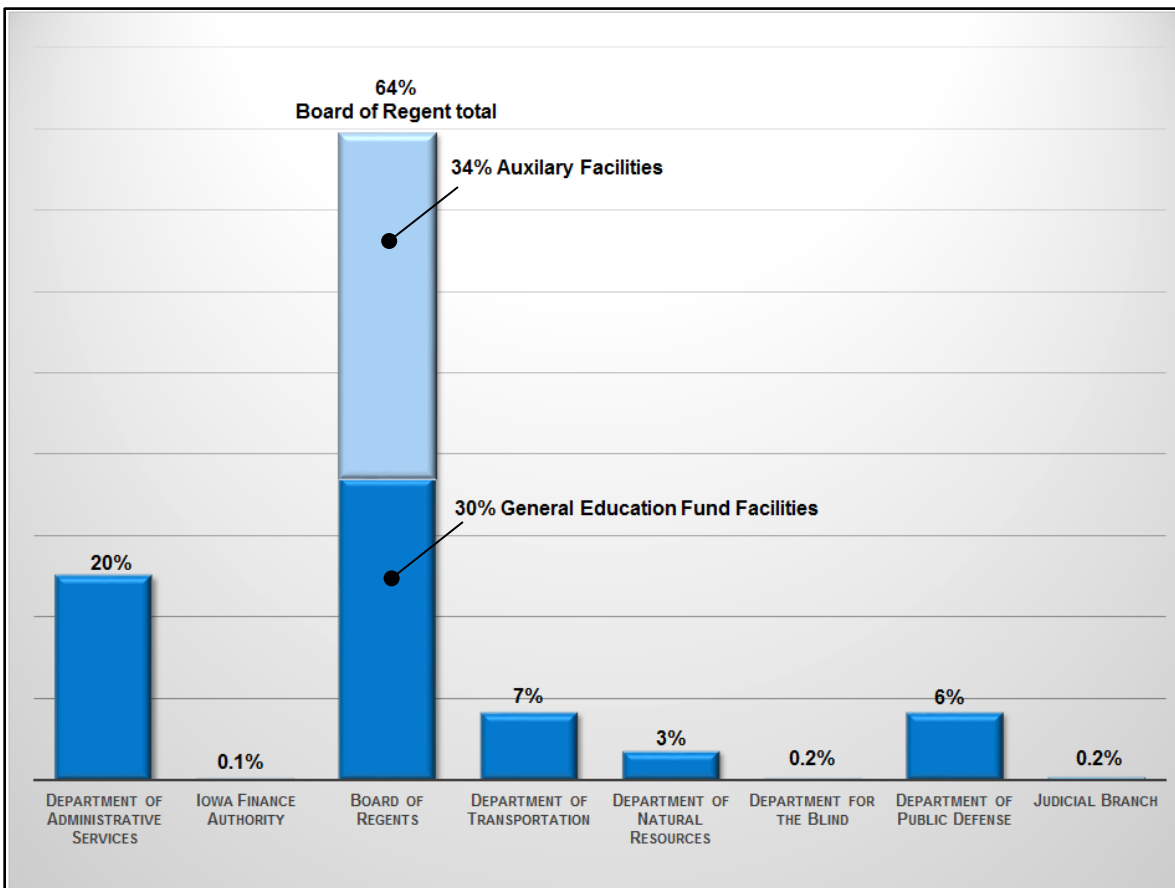
Gross Square Feet (GSF)	SUI	ISU	UNI	ISD	IBSSS	Total
Academic, Research, & Administration (GEF)	8,673,884	7,269,994	2,572,858	381,236	191,507	19,089,479
UIHC	4,172,242					4,172,242
All Other	8,218,002	7,461,604	2,141,794			17,821,400
UIHC and All Other Subtotal =						21,993,642
Total	21,064,128	14,731,598	4,714,652	381,236	191,507	41,083,121

➤ **State-Funded Square Footage**

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

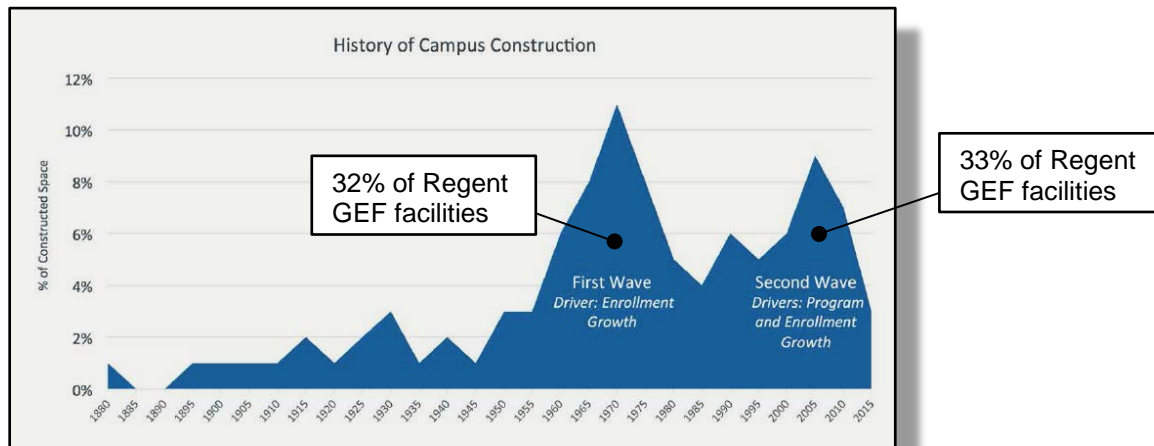
Out of these eight State agencies, the Board of Regents own, operate and maintain 64 percent of the square footage. Nearly half of that 64 percent is GEF facilities, which include academic, research and administration facilities. The other half includes auxiliary facilities such as the University of Iowa Hospitals and Clinics, utilities, athletic facilities, residence halls, recreation facilities, parking, student unions and Iowa State University Agricultural Experiment Station. Together, the GEF and auxiliary facilities have a replacement value of \$20 billion.

Eight State-Funded Agencies: Square Footage*



* April 2017, does not include the Department of Education

c. Age and Quality: Sightlines is a nationally known strategic planning and advisory firm specializing in higher educational facilities, who consults directly with all three of universities and tracks over 400 campuses in 44 states and four Canadian provinces. They report there have been two major waves of construction over the last 50 years that put stress higher education’s ability to care for their facilities.



Sightlines: 2018 State of Facilities in Higher Education

The majority of campus buildings were constructed before 1975 or 44 years ago. The Regents’ average facility age is 41 years, down from 44 last year. Age and the quality of the original construction are two of the biggest contributing factors to the amount of deferred maintenance and fire safety deficiencies in any facility.

➤ **First Wave of Construction**

The “First Wave” of construction in the 1960s and 1970s (see above) represents 40 percent of all campus construction in the United States (32 percent of Regent GEF facilities) today and was generated by the G.I. Bill of 1944 and the Baby Boomer Generation (persons born between 1946 and 1964). This construction wave is characterized by buildings that were built quickly, have poor construction and now represents one of the largest portion of the Regents’ growing backlog of deferred maintenance. Now 39 to 58 years old, most of these facilities have reached or would soon reach the end of their useful lives. These buildings must be repaired, renovated or replaced in order to maintain competitive programs on Regent campuses. This represents our need to “catch up” with deferred maintenance.

➤ **Second Wave of Construction**

The “Second Wave” from 1995 to 2015 (see above) represents another 30 percent of all campus construction in the United States (33 percent for Regent GEF facilities) today. It was largely generated by the increasing enrollment of millennials (persons born between 1981 and 1996), who had different higher expectations, including a higher demand for collaboration and new technology. This wave produced buildings that met those needs and were much more energy efficient. However, these buildings require more routine maintenance to keep systems operating at peak performance and represent our need to “keep up” with deferred maintenance.

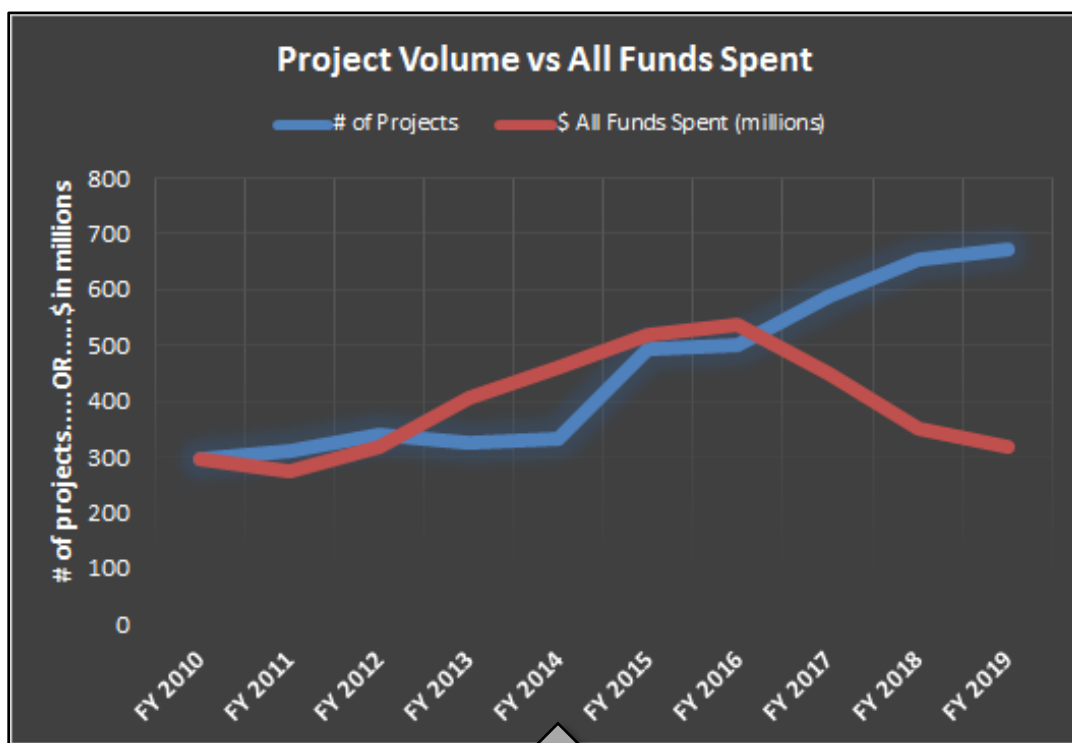
In summary, Regent “catch up” needs (32 percent-First Wave) and “keep up” needs (33 percent-Second Wave) make up 65 percent of all Regent deferred maintenance or \$756 million.

Section 2, part 2 of 6

**All Funds Spent on Capital Projects
over \$250,000 over the last 10 Years**

For all Regent projects over \$250,000 over the last 10 years, institutions spent an average of \$393 million per year. For the first seven years, project volume and funds spent increased together. Over the last three years, the institutions have taken on lower cost projects.

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



	FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		FY 2019	
	Proj.	Cost ¹	Proj.	Cost ¹	Proj.	Cost ¹	Proj.	Cost ¹	Proj.	Cost ¹	Proj.	Cost ¹	Proj.	Cost ¹	Proj.	Cost ¹	Proj.	Cost ¹	Proj.	Cost ¹
SUI ²	194	\$174.5	181	\$160.7	198	\$225.9	196	\$244.5	203	\$361.0	362	\$408.8	364	\$397.1	401	\$302.1	492	\$236.5	506	\$208.4
ISU	65	\$103.0	89	\$89.9	105	\$79.1	91	\$125.2	100	\$84.9	107	\$105.8	115	\$115.2	162	\$107.7	131	\$103.6	133	\$98.5
UNI	38	\$18.5	41	\$23.0	37	\$13.4	37	\$35.2	29	\$13.4	23	\$6.0	23	\$25.0	24	\$38.0	31	\$11.0	34	\$12.0
Total	297	\$296.0	311	\$273.6	340	\$318.4	324	\$404.9	332	\$459.3	492	\$520.6	502	\$537.3	587	\$447.8	654	\$351.1	673	\$318.9
annual average = \$392.8																				

¹ \$ in millions
² \$ includes UIHC

Section 2, part 3 of 6

CLASSROOM UTILIZATION

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

The analyses concluded that there was no need for additional, traditional classroom space, but did not speak to the quality of existing space, the need to renovate or replace existing space, or the space's relevance to evolving pedagogy. Ad Astra did note that some space might need to be renovated, which would involve additional cost. A number of factors including capacity, seating type and location, as well as the quality and condition of the space, can affect classroom utilization.

University of Iowa

Through renovations and room reassignments over the last year, the number of university classrooms increased by two, while departmental labs went up nine.

The Office of the Registrar, Classroom Scheduling, continues in its work to support the previous recommendations from 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 the classrooms are inadequate due to poor conditions, poor locations or capability to support today's pedagogies.

Iowa State University

Through renovations and room reassignments over the last year, the number of university classrooms increased by seven, while departmental labs went down five.

With regard to instructional space utilization, the University analyzes classroom, teaching lab and seminar room utilization twice per year. In response to increased enrollment, the University continues to schedule teaching labs either before 7:00 a.m., or into the evening hours. Classroom use for special events after normal business hours has increased significantly over the past several years with a shortage of larger rooms in the evenings. There is a focus to meet the needs

of ISU's expanding undergraduate student enrollment by proactively forecasting demand and scheduling classrooms. Work is in progress to create more detailed reports and graphs, so departments can review their course offerings and match needs with available space.

For long-term actions, the University plans to further implement data analytics to ensure that course enrollment and classroom capacity are closely matched. Plans to review how to systematically analyze one-day offerings to reduce utilization barriers are also in place. In addition, they would continue to collaborate with the Academic Division, Office of the Registrar and Faculty Senate to review current room scheduling practices and policies.

For classroom improvements, the University reports that it prioritizes and funds classroom and instructional technology improvements based on a Classroom Improvement Study, metrics and forecasting.

University of Northern Iowa

Over the last year, the number of university classrooms and departmental labs remained unchanged.

Facilities Management, in conjunction with the Office of the Registrar, continues to evaluate classroom and laboratory space by way of a scheduled tour of campus each academic year. Rooms have been re-classified as a result. During Spring 2018, the University started the transition to EMS (Event Management System) as a campus-wide room scheduling system and implemented it Fall 2018. This system allows efficient academic room scheduling and single-source room utilization for the campus.

As a result, rooms have been evaluated over the course of the year with assistance of the appropriate departments to determine proper space classifications, scheduling practices and capacities. As renovation needs arise, the Office of the Registrar and Facilities Management have been able to effectively utilize EMS reports to evaluate the space in question, especially new capacities and fire code issues.

Through EMS, the University has implemented Standard Class Meeting Times. This allows fewer courses to be scheduled 'off-schedule.' It has resulted in more effective space scheduling and less administrative work.

Iowa School for the Deaf

ISD leased some facility space with six other agencies during FY19, including the Iowa Educational Services for the Blind and Visually Impaired, Children's Choice Country, FAMILY, Incorporated, Green Hills Area Education Agency and Promise Partners.

Iowa Braille and Sight Saving School

Since 2008, AmeriCorps has leased roughly 60% of the IBSSS as their North Central Regional site. Approximately 500 AmeriCorps/FEMA Corps members and 24 administrative staff are housed at the IBSSS at various times throughout the year. Since June 2016, the Board Office, IBSSS, ISD and the City of Vinton have been working collaboratively to transfer ownership of the IBSSS to the City of Vinton, while retaining AmeriCorps at the IBSSS.

Strategies and Policies for Optimal Utilization of Existing Campus 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 in the general vicinity of the main campus, an explanation of the spaces on campus examined and 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 assess the building's physical condition, contribution to the university's mission and heritage and potential for reuse. Based upon this assessment, each university should determine whether it is prudent to retain such facilities or raze them and recycle as much of their building components as possible.

* Adopted by the Board, May 2006

Section 2, part 4 of 6

INTERINSTITUTIONAL COLLABORATION

Regent institutions continue to work together as a team and coordinate facility efforts. This collaboration allows the institutions to share best practices and pool resources to investigate and pursue innovative and cost saving approaches. Here are some examples.

- Electronic bidding system (Bid Express) = saves \$92,000 per year over paper bids
- Electronic signatures (DocuSign) = saves \$15,000 per year over paper and wet signatures
- Electronic interinstitutional meetings (Zoom) = saves \$11,800 per year over face-to-face meetings
- ISU and UNI are sharing an electronic payment system for design professionals and contractors.
- SUI and ISU are promoting the economic development of Miscanthus; a dedicated energy crop used a biofuel in SUI's Power Plant. In 2016, 175 acres of Miscanthus were planted for a total to 900 acres under contract with local farmers.
- ISU continues to oversee capital projects, safety policies and compliance of asbestos, lead and chemical management for ISD and IBSSS.
- SUI, ISU, UNI and the Board Office meet bi-annually with Master Builders of Iowa (MBI) and many Iowa contractors to discuss Regent facility issues, alternative project delivery methods, construction market conditions and upcoming projects.
- Collaborating with the Board Office to ensure that the Board's *Policy Manual* reflects current design and construction practices, to simplify project processes and to correct inconsistencies.
- Board Office, IBSSS, ISD and the City of Vinton worked collaboratively to iron out details of the AmeriCorps lease at IBSSS and the subsequent transfer of the Iowa Braille and Sight Saving School to the City of Vinton.
- Sharing service contracts for water treatment, environmental emissions testing, hazardous waste disposal, electronic waste recycling, boiler water treatment and cleaning chemicals.
- Meeting annually with building maintenance, grounds and custodial staff to share planning strategies, information and best practices.

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FIRE SAFETY and ENVIRONMENTAL SAFETY

Fire and environmental safety standards are established by the State Fire Marshal's Office with the Iowa Department of Public Safety, the Iowa Occupational and Safety Act (IOSHA) with Iowa Workforce Development, Environmental Health and Safety agencies on campus and other federal and state governmental regulatory entities. Fire and environmental safety deficiencies are normally 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 the fire safety improvements may be accomplished as part of a renovation project.

Each year, there are subtractions to the list as work is completed. Additions to the list normally come from the altered use of a space, which can change applicable building code requirements. Thus, the amount needed to correct the deficiencies does not necessarily decline by the amount that institutions have expended.

The Regent institutions cooperate with the State Fire Marshal's Office in establishing fire safety priorities; each institution has a systematic method for determining the priority of fire safety improvements.

Citations from the State Fire Marshal can be classified as:

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

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

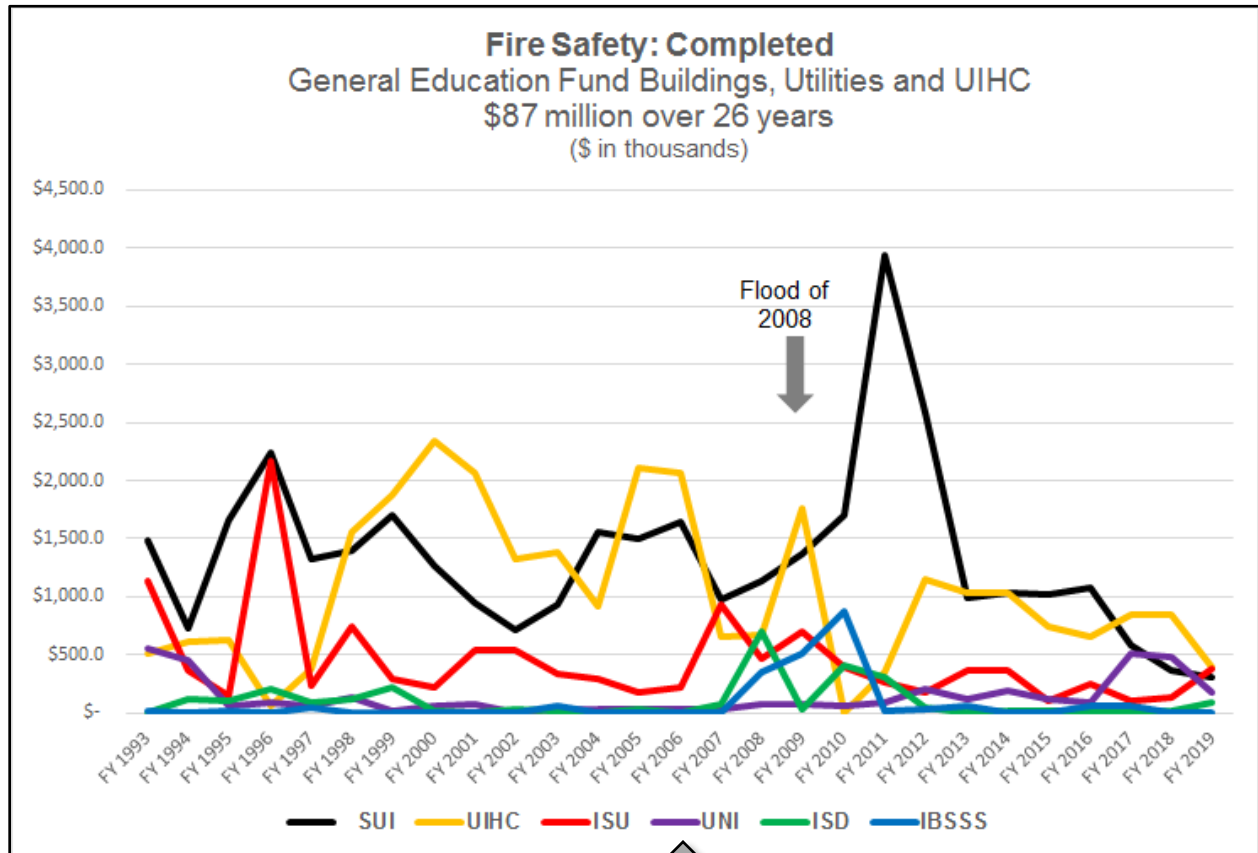
Many environmental safety issues come directly from facilities. Issues include asbestos, lead, Underground Storage Tanks (USTs), Spill Prevention, Control, & Countermeasure (SPCC) Plans, Storm Water Pollution Prevention Plans (SWPPP), Polychlorinated Biphenyls ((PCBs) banned in 1978 and found in some fluorescent light ballasts, floor mastic and caulking in buildings built from 1950-1970), 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 FY 2019, Iowa State University spent \$1 million at 114 locations to abate asbestos in General Education Fund facilities alone. ISU plans to spend another \$560,000 in FY 2020.

➤ **Fire Safety Projects: Completed**

The Regents completed over \$87.7 million in fire safety projects from FY 1993 through FY 2019 (26 years) in General Education Fund facilities and UIHC. That is an average of \$3.3 million per year.

In FY 2019, \$1.3 million was spent on fire safety projects, while over \$2.9 million is planned for FY 2020.



Source of Funds	SUI	UIHC	ISU	UNI	ISD	IBSSS	Total
Capital Appropriations	\$1,760.0	\$0.0	\$1,436.9	\$174.7	\$935.0	\$362.3	\$4,668.9
Academic Building Revenue Bonds	3,150.2	-	2,994.3	826.0	-	-	6,970.5
Building Renewal / General University	20,750.5	0.0	7,864.6	3,045.9	1,053.4	1,686.8	34,401.2
Treasurer's Temporary Investments (TTI)	10,820.8	-	542.8	174.8	-	-	11,538.4
UIHC Building Usage Funds	-	28,359.6	-	-	-	-	28,359.6
Other	564.0	0.0	396.0	1.3	793.0	61.0	1,815.3
Total	\$ 37,045.5	\$ 28,359.6	\$ 13,234.6	\$ 4,222.7	\$ 2,781.4	\$ 2,110.1	\$ 87,753.9
							annual average over 26 years \$3,375.2

➤ **Fire Safety Projects: Outstanding**

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

Fire Safety Projects: Outstanding						
General Fund Buildings and Utilities						
Fall 2019 ¹						
(\$ Thousands)						
	SUI	ISU	UNI	ISD	IBSSS	Total
Fire Safety Projects	\$2,903.6	\$3,291.0	\$3,282.8	\$85.9	\$ 60.0	\$9,623.3

This \$9.6 million is a nine percent less than the \$10.6 million reported in Fall 2018.

In addition to the \$86.7 million completed over the last 26 years, the following describes fire safety progress made by the institutions in FY 2019.

University of Iowa

Under the UI fire safety program, 95 buildings are inspected and evaluated on a bi-annual basis by inspectors from the State Fire Marshal's Office with assistance from the UI Fire Safety Coordinator. In addition to bi-annual inspections, pre-occupancy inspections are 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 occupancy and mitigate the possibility of finding major deficiencies during future inspections.

- 2018 Annual State Fire Marshal's Inspections.
- In FY 2019, Building and Landscape Services took a more pro-active role in providing an enhanced level of fire and life safety inspections than what they had offered in the past. Beside handling the required fire protection and detection systems inspections and monthly fire extinguisher inspections, fire safety inspectors conducted basic fire prevention style inspections looking for obvious deficiencies, including inoperative exit sign lights and emergency lighting units
- Network of the fire alarm systems – Facilities Management continued to add to the network of fire alarm systems in UI buildings. Currently 101 buildings are connected to the five-loop network. The network provides actual building floor plans, showing each fire alarm device, and provides the UI Police communications center with real time information on each networked building. If needed, the network can allow the UI Police to activate the building's severe weather alert and perform live voice announcements for other types of campus emergencies.

- Higher Education Opportunity Act (HEOA) Annual Fire Safety Report – The University of Iowa has completed the 2017 fire safety report, as required by the Federal Department of Education. This report provides a log of all fire incidents that occurred in on-campus student housing facilities during the past three academic years. The 2018 report is due in October.

Iowa State University

Iowa State University's Department of Environmental Health and Safety (EH&S) works to ensure compliance with fire safety codes in GEF facilities. All plans and designs for new buildings and renovation projects are reviewed for code compliance and checked for outstanding fire safety deficiencies. Fire safety deficiencies needing to be incorporated into a project are formally communicated to the project designers and engineers. Project designers and engineers routinely consult with EH&S to resolve challenging fire safety deficiencies early in the planning stages.

- As part of renovation projects in LeBaron Hall, Palmer Building, Molecular Biology, Science Hall and Town Engineering upgrades were made to fire detection systems. The Design Center's sprinkler system was extended.
- In 2017, the State Fire Marshal's Office authorized ISU's Environmental Health & Safety's Fire Safety (EH&S) group to conduct fire inspections on their own.
- EH&S works to ensure compliance with fire safety codes in GEF facilities. All plans and designs for new buildings and renovation projects are reviewed for code compliance and checked for outstanding fire safety deficiencies. Fire safety deficiencies needing to be incorporated into a project are formally communicated to the project designers and engineers. Project designers and engineers routinely consult with EH&S to resolve challenging fire safety deficiencies early in the planning stages.
- The most current estimate for outstanding fire safety deficiencies identified by the State Fire Marshal and EH&S in GEF facilities is \$3,291,000. This estimate includes \$855,000 to replace the sprinkler systems in Bessey Hall and the National Swine building in FY 2020.
- Funding for correcting fire safety deficiencies comes from the Capital Renewal and University Services Overhead Use Fund, and are specifically identified as the Health and Life Safety projects.

University of Northern Iowa

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

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

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

Iowa School for the Deaf

The State Fire Marshal's Office conducts fire and environmental safety inspections with the Council Bluffs Fire Department's Fire Inspector at ISD. The State Fire Marshal's most recent inspection of ISD was in November 2018. The next inspection is scheduled for December 2020.

- In FY 2019, ISD made fire alarm panel repairs in four buildings: Long Hall, Girls Dormitory, Giangreco Hall and the Careers Building.

Iowa Braille and Sight Saving School

Since the State Fire Marshal's Office discontinued regular fire and environmental inspections of IBSSS in 2011, due to the closure of the IBSSS residential program, ISU's EH&S has been authorized by the State Fire Marshal's Office to do the inspections. The last inspection was July 2018. The next inspection is scheduled for Fall 2019.

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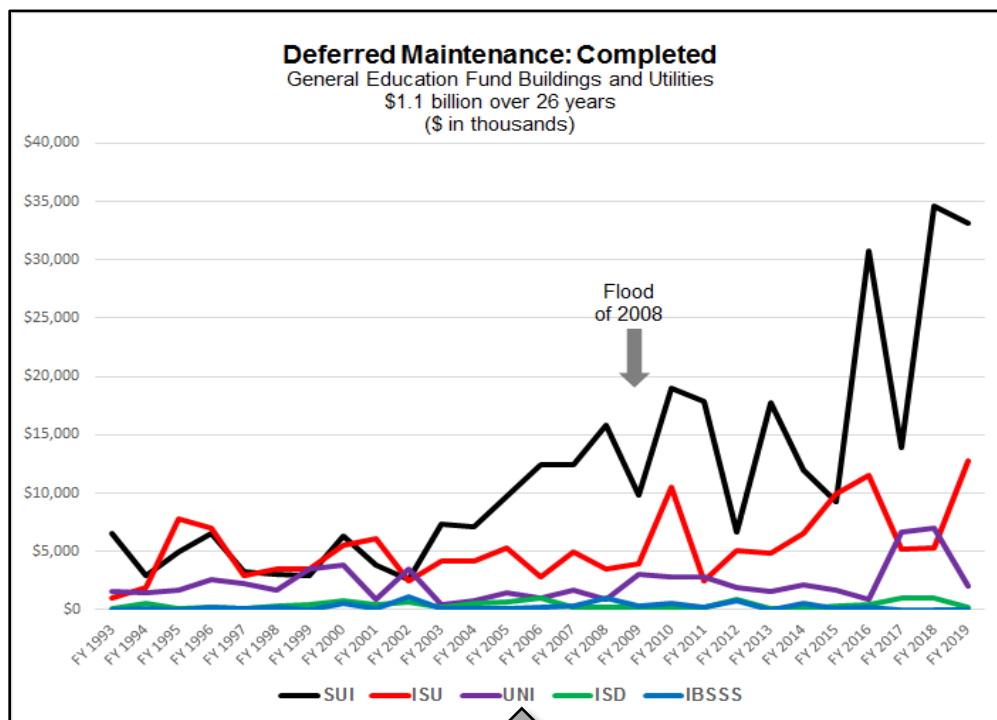
Deferred Maintenance

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

“The repair or replacement of all, or a part of, an existing capital asset that was not repaired or replaced at the appropriate time because of a lack of funds.”

➤ **Deferred Maintenance: Completed**

Regent institutions completed over \$1.12 billion in deferred maintenance projects from FY 1993 through FY 2019 in General Education Fund facilities or \$43 million per year. In FY 2019, they spent \$48 million, exceeding the 26-year average by \$5 million. For FY 2020, over \$75 million in deferred maintenance projects are planned.



Source of Funds (\$ in thousands)	SUI	ISU	UNI	ISD	IBSSS	Total
Capital Appropriations	\$55,275	\$43,405	\$102,892	\$3,755	\$2,491	\$207,818
Special Appropriations	1,450	25	620		60	2,155
Academic Building Revenue Bonds; Pre 1991, 1991, 1992, 1994, 1995, 2004, 2007, 2008	23,637	21,036	50,921			95,594
Building Renewal/Building Maintenance/General University	108,913	149,888	47,540	5,733	3,905	315,980
Building Renewal/Academic Building Revenue Bonds	52,728	12,565	84			65,377
Treasurer's Temporary Investment (TTI) Income	23,018	11,354	3,150			37,522
Gifts, Grants	13,496	34,844	12,967	224		61,531
Utility Renewal and Replacement and Revenue Bonds	193,923	28,099	19,998			242,020
Agriculture Experiment Station & Cooperative Extension		1,175				1,175
Facilities Overhead Use Allowance	1,679	12,477				14,156
Other (combinations of above)	54,718	7,686	10,710	2,686	501	76,300
Total	\$528,838	\$322,553	\$248,881	\$12,398	\$6,957	\$1,119,627
						annual average over 26 years \$43,062.6

➤ **Deferred Maintenance: Outstanding**

For Fall 2019, the Regent institutions report a total of \$1.16 billion in outstanding deferred maintenance in General Education Fund buildings and utilities. This does not include projects planned for FY 2019, which do have deferred maintenance in them.

Deferred Maintenance: Outstanding						
General Fund Buildings and Utilities						
Fall 2019						
(\$ Thousands)						
	SUI	ISU	UNI	ISD	IBSSS	Total
Individual Projects						
Buildings ¹	\$324,739	\$451,277	\$106,497	\$ 890	\$1,133	\$ 884,536
Utilities	11,088	23,735	14,537	290	150	49,800
Subtotal	\$335,827	\$475,012	\$121,034	\$1,180	\$1,283	\$ 934,336
Included within Five Year Capital Plan (FY 2021 - FY 2025)						
Buildings ¹	\$ 88,375	\$ 9,327	\$ 37,696	\$5,215	\$ -	\$ 140,613
Utilities	67,500	7,550	12,929	290	-	88,269
Subtotal	\$155,875	\$ 16,877	\$ 50,625	\$5,505	\$ -	\$ 228,882
Grand Total						
Buildings ¹	\$413,114	\$460,604	\$144,193	\$6,105	\$1,133	\$1,025,149
Utilities	78,588	31,285	27,466	580	150	138,069
Total	\$491,702	\$491,889	\$171,659	\$6,685	\$1,283	\$1,163,218

¹ Includes site work.

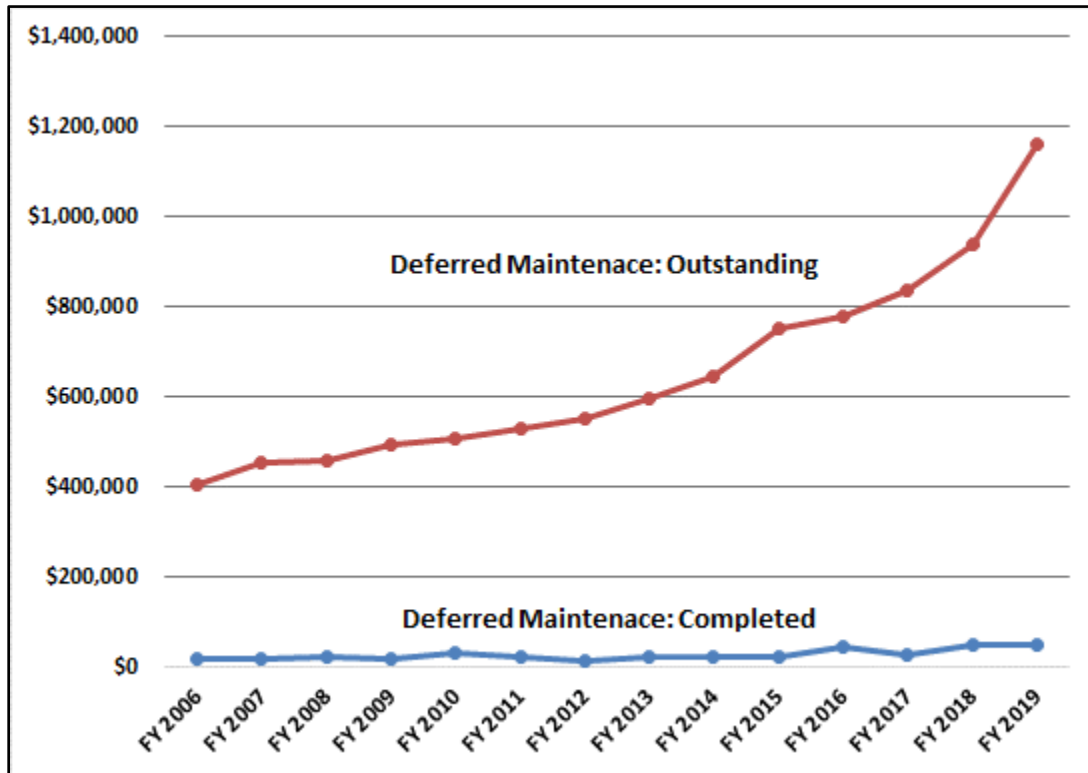
The \$1.16 billion in outstanding deferred maintenance is a 24% increase over last year, due to an adjustment in the calculation of deferred maintenance Regent-wide. Please note that all three universities utilize the same process to determine deferred maintenance.

Deferred maintenance calculations start with a facility or building component becoming a deferred maintenance item, when it has outlived its useful life. Cost of the deferred maintenance is then determined by utilizing construction industry standards, cost per square foot information, consultation with Sightlines and comparisons to similar Regent projects.

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

As previously mentioned, 32 percent of Regent GEF facilities are reaching or have reached the end of their useful lives, due to their age dating back to the First Wave of construction in the 1960s and 1970s.

Deferred Maintenance: Completed vs Outstanding
General Education Fund Facilities and Utilities
Fall 2019



So, why the \$1.16 billion in outstanding deferred maintenance? According to Sightlines' *"The State of Facilities in Higher Education: 2016 Benchmarks, Best Practices & Trends,"* there are three key conditions affecting higher education facilities and their deferred maintenance backlogs.

- Age: The average age of Regent facility is 41 years, three years better than the national average.
- Quality of Construction: As previously noted, two waves of construction over the last 50 years continue to contribute to 65% of the Regents' deferred maintenance.
- Enrollment: While there was 14% growth in Regent enrollment from 2008 to 2017, often requiring renovated or new facilities, enrollment has leveled off or slightly declined over the last two years.
- Lack of funds: Current capital investment is simply not enough to "catch up" and "keep up" with deferred maintenance.

Deferred Maintenance: Institutional Comments

University of Iowa

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

Recently, the University has transitioned from using Intelligent Systems & Engineering Services (ISES), a consulting firm that provides facilities condition assessments, to Sightlines. The GEF building data in this report was provided through work with Sightlines. Data collection for the facility condition analysis is complete and has been verified through interviews with frontline staff. Please note that previous assessments primarily used asset age for data compilation, whereas Sightlines data uses age and input from frontline staff.

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

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

The University of Iowa is now developing 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. This generates a list of priority projects. This matrix would be agreed upon by the appropriate university staff to create alignment and acceptance. The matrix is intentionally flexible so it is adaptable for the future.

➤ **University of Iowa Hospitals and Clinics**

The University of Iowa Hospitals and Clinics does not have any deferred maintenance that meets the Regents’ definition.

Iowa State University

ISU had a 6% increase in outstanding deferred maintenance this year. The deferred maintenance backlog is based upon a systematic process for identifying the maintenance and repair requirements for 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 requirements and allocate the available resources. Requests 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, assuring the University addresses the most critical needs.

Utility deferred maintenance is found in the central campus cogeneration plant, satellite heating and cooling plants, and the underground utility distribution systems. Some components of these systems are more than 50-100 years old and are showing their age.

Utility rates are developed to allow funds to be budgeted for maintenance and repairs. Routine maintenance is budgeted at \$3.5 million per year. Major repairs and overhauls are budgeted at \$2.5 million per year. This approach has been successful in maintaining the critical utility systems serving the campus in good condition.

University of Northern Iowa

UNI had a 7% increase in overall deferred maintenance this year. This would require UNI to increase their annual deferred maintenance budget.

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

The University is striving to maintain its facilities on a building repairs budget of \$1,400,000. This is 0.12% of our \$1.16 billion GEF replacement value. The Board of Regents Policy Manual states that institutions should plan to budget 1.5% of replacement value or \$17 million. According to national standards, 1% is the minimum commitment to prevent future facilities deterioration. Operations and maintenance personnel focus their resources based on a priority system that addresses safety issues, educational support, and repair of facilities equipment to lengthen the assets life.

Iowa School for the Deaf

ISD had a 36% decrease in overall deferred maintenance this year. Deferred maintenance items are identified through inspection and reporting from facility staff and Council Bluffs site users. Projected estimates have been developed in conjunction with ISU and through an independent study performed by Nielsen/Mayne Architectural firm.

Due to the age of the buildings, tuckpointing is necessary on Long Hall (high school) and the Giangreco Hall (Administration Building). Long and Giangreco are in need of foundation waterproofing. Interior renovations are needed in Long Hall's classrooms, as well as 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. ISD keeps a deferred maintenance list, which aids in their decision making process.

Iowa Braille and Sight Saving School

IBSSS had a 14% decrease in overall deferred maintenance this year due to a complete reassessment of deferred maintenance as part of the ongoing negotiations to transfer ownership of the IBSSS to the City of Vinton.

Deferred maintenance items are identified through ISU and IBSSS facility staff. Approximately 53% of IBSSS's deferred maintenance projects are in Old Main. The remaining 47% is in Palmer Hall, Rice Hall, Cottage and the Recreation Building. Deferred maintenance projects also include utilities. As funds are available, many deferred maintenance issues have been addressed. IBSSS keeps a deferred maintenance list, which aids in their decision making process.

Deferred Maintenance Analysis

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

In spite of the \$1.16 billion in deferred maintenance, the institutions are moving forward and developing strategies to fund both "keep up" and "catch up" needs. In doing so, they set priorities based on a number of factors, including building condition and utilization, operational demands and program growth. From there, the universities track the performance of its mission critical buildings that currently face the highest risk of failure to determine the best course of action.

Deferred Maintenance Recommendations¹

- Invest with space utilization in mind. Continue to target facilities where existing space can be made more efficient.
- Create investment "win-wins." Continue to combine facilities manager's renewal investments with program modernization, so departments are more likely to reach their goals and spend more efficiently.
- Maximize the impact of each investment. Continue to connect deferred maintenance investment with university priorities and mission success.
- Plan where *not* to spend future capital. Continue to make tough decisions about buildings that do not warrant additional investment and identify space for intentional deferred maintenance.

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

**END OF
FACILITIES GOVERNANCE REPORT**

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Section 3

INSTITUTIONAL ROADS PROGRAM

Executive Summary: The Regents' Five-Year Institutional Roads (IR) Program for CY (calendar year) 2020 – CY 2024 and other State agencies are funded annually by the Iowa Department of Transportation's (DOT) State Parks and Institutional Roads Program.

Quick Facts

• IR Capital Plan for CY 2020	= \$ 1,942,500*
• IR Capital Plan for CY 2020 – CY 2024	
• University of Iowa	= \$ 4,080,000*
• Iowa State University	= \$ 4,080,000*
• University of Northern Iowa	= \$ 2,040,000*
• Special Schools / Iowa Lakeside Lab	= \$ 100,000*
• IR Capital Plan for CY 2020 – CY 2024	= \$10,300,000*

* Funded by the Iowa Department of Transportation

Background: The Iowa DOT's State Parks and Institutional Roads Program provides 65/100 of one percent of the Iowa Road Use Tax Fund (RUTF) for the construction, reconstruction, improvement and maintenance of roads and streets located on Regent property and all other state land. 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.

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

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

➤ **Overview of Five-Year Institutional Roads Program**

From the Iowa Road Use Tax Fund, the DOT estimates funds for the Regents for the next five calendar years.

Funds are allocated each year into two categories;

- reconstruction and improvement projects and
- pavement maintenance and repairs.

Projects at the Special Schools and the Iowa Lakeside Laboratory are given first consideration. The remainder is distributed 40% SUI, 40% ISU and 20% UNI for their most urgent roadway needs.

It is important to note that the level of annual Institutional Roads funding is not sufficient to address all Regent roadway improvement needs.

➤ **Five-Year Institutional Roads Program for CY 2020 – CY 2024**

A five-year total of \$10,300,000 would be programmed for the following projects.

Five-Year Institutional Roads Program Summary		Calendar Years					Total
		CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	
SUI	Reconstruction and Improvements	Hawkeye Park Road - Phase 1					
		Melrose Avenue to Hawkeye Road	\$ 220,000				
		Hakeye Park Road - Phase 2					
		Melrose Avenue to Hawkeye Drive		\$ 289,600			
		Hawkins Drive - Melrose Ave to Evashevski Drive		\$ 105,100	\$ 1,025,000		
		Elliott Drive - Hawkins Dr to Newton Road				\$ 300,000	\$ 655,000
	Reconstruction and Improvement Subtotal	\$ 220,000	\$ 394,700	\$ 1,025,000	\$ 300,000	\$ 655,000	\$ 2,594,700
	Repair	Pavement Management	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000
		Annual Special Maintenance	\$ 206,700	\$ 206,700	\$ 206,700	\$ 206,700	\$ 206,700
		Repair Subtotal	\$ 251,700	\$ 251,700	\$ 251,700	\$ 251,700	\$ 251,700
Preventative Maintenance	College of Public Health Pedestrian Bridge	\$ 226,800					
	Repair Subtotal	\$ 226,800	\$ -	\$ -	\$ -	\$ -	
SUI Total		\$ 698,500	\$ 646,400	\$ 1,276,700	\$ 551,700	\$ 906,700	\$ 4,080,000
ISU	Reconstruction	Union Drive & Welch Road Reconstruction	\$ 228,600				\$ 228,600
		Scholl Road - Ontario to just north of railroad tracks			\$ 350,000	\$ 300,000	\$ 100,000
		13th Street - Squaw Creek east to ISU property limit				\$ 163,320	\$ 613,320
		Improvement Subtotal	\$ 228,600	\$ -	\$ 350,000	\$ 463,320	\$ 713,320
	Improvements	University Boulevard & Wallace Road - Signal Replacement	\$ 182,800				
		University Boulevard & Haber Road - Signal Replacement		\$ 304,720	\$ 145,280		
		South 16th Street (east of Jack Trice Stadium) - Widen Road	\$ 100,000	\$ 155,000	\$ 165,000	\$ 200,000	
		Mortensen Road - Traffic Control		\$ 200,000			
		Reconstruction Subtotal	\$ 282,800	\$ 659,720	\$ 310,280	\$ 200,000	\$ -
	Repair	Pavement Management	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
Annual Special Maintenance		\$ 89,800	\$ 72,880	\$ 72,880	\$ 87,880	\$ 87,880	
Pavement Preservation		\$ 200,000	\$ 68,600	\$ 68,040	\$ 50,000		
Repair Subtotal		\$ 304,600	\$ 156,280	\$ 155,720	\$ 152,680	\$ 102,680	
ISU Total		\$ 816,000	\$ 816,000	\$ 816,000	\$ 816,000	\$ 816,000	\$ 4,080,000
UNI	Reconstruction	Panther Parkway (W. 31st Street to W. 27th Street) - Phase 2	\$ 383,000				\$ 383,000
		Center for Energy Environmental Education Drive		\$ 82,160			\$ 82,160
		Wisconsin Street (North of W. 26th Street)		\$ 301,000			\$ 301,000
		West 31st Street Modifications (Illinois Street to Ohio Street)			\$ 160,000		\$ 160,000
		Strayer-Wood Loop			\$ 223,000		\$ 223,000
		Campus Street (South of University Ave to Jennings Drive)				\$ 383,000	\$ 383,000
		Jennings Drive (G Street to Roth Parking Lot North Driveway) Phase 1					\$ 383,000
	Reconstruction Subtotal	\$ 383,000	\$ 383,160	\$ 383,000	\$ 383,000	\$ 383,000	
	Repair	Pavement Maintenance	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
		Repair Subtotal	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
UNI Total		\$ 408,000	\$ 408,000	\$ 408,000	\$ 408,000	\$ 408,000	\$ 2,040,000
SUI, ISU & UNI Subtotal		\$ 1,922,500	\$ 1,870,400	\$ 2,500,700	\$ 1,775,700	\$ 2,130,700	\$ 10,200,000
SpS*	Repair	crack sealing, repairs	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
		Special Schools Total	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
GRAND TOTAL		\$ 1,942,500	\$ 1,890,400	\$ 2,520,700	\$ 1,795,700	\$ 2,150,700	\$ 10,300,000

* Special Schools (ISD & IBSSS) and Iowa Lakeside Laboratory

Specifically for CY 2020, \$1,942,500 would be planned from the \$10,300,000 five-year total.

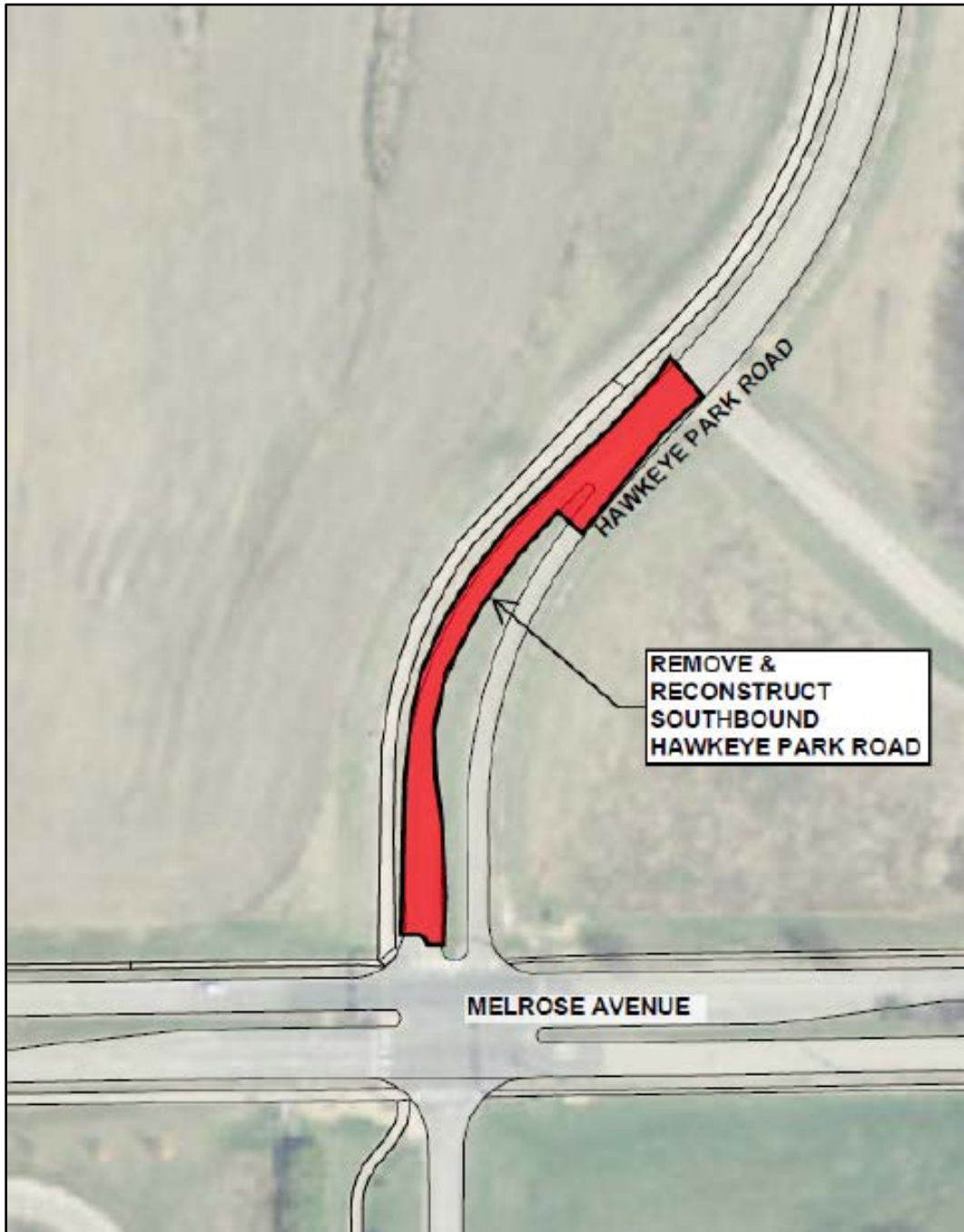
Proposed Institutional Roads Projects for CY 2020

SUI See pages 45-49.	Hawkeye Park Road – Phase 1		
	Melrose Avenue to Hawkeye Drive	\$ 220,000	
	Pavement Management (ongoing)	45,000	
	Annual Special Maintenance (ongoing)	206,700	
	College of Public Health Pedestrian Bridge	226,800	\$ 698,500
ISU See page 50.	University Boulevard & Welch Road Reconstruction	228,600	
	University Boulevard & Wallace Road, Signal Replacement	182,800	
	South 16 th Street (east of Jack Trice Stadium), Widen Road	100,000	
	Pavement Management (ongoing)	15,000	
	Annual Special Maintenance (ongoing)	89,600	
	Pavement Preservation (ongoing)	200,000	\$ 816,000
UNI See page 51.	Panther Parkway - West 31 st Street to West 27 th Street (Phase 1)	\$ 383,000	
	Pavement Maintenance (ongoing)	25,000	\$ 408,000
ISD, IBSSS & Iowa Lakeside Laboratory	Crack Sealing/Repairs	\$ 20,000	\$ 20,000
Proposed Institutional Roads projects for CY 2020			\$ 1,942,500

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

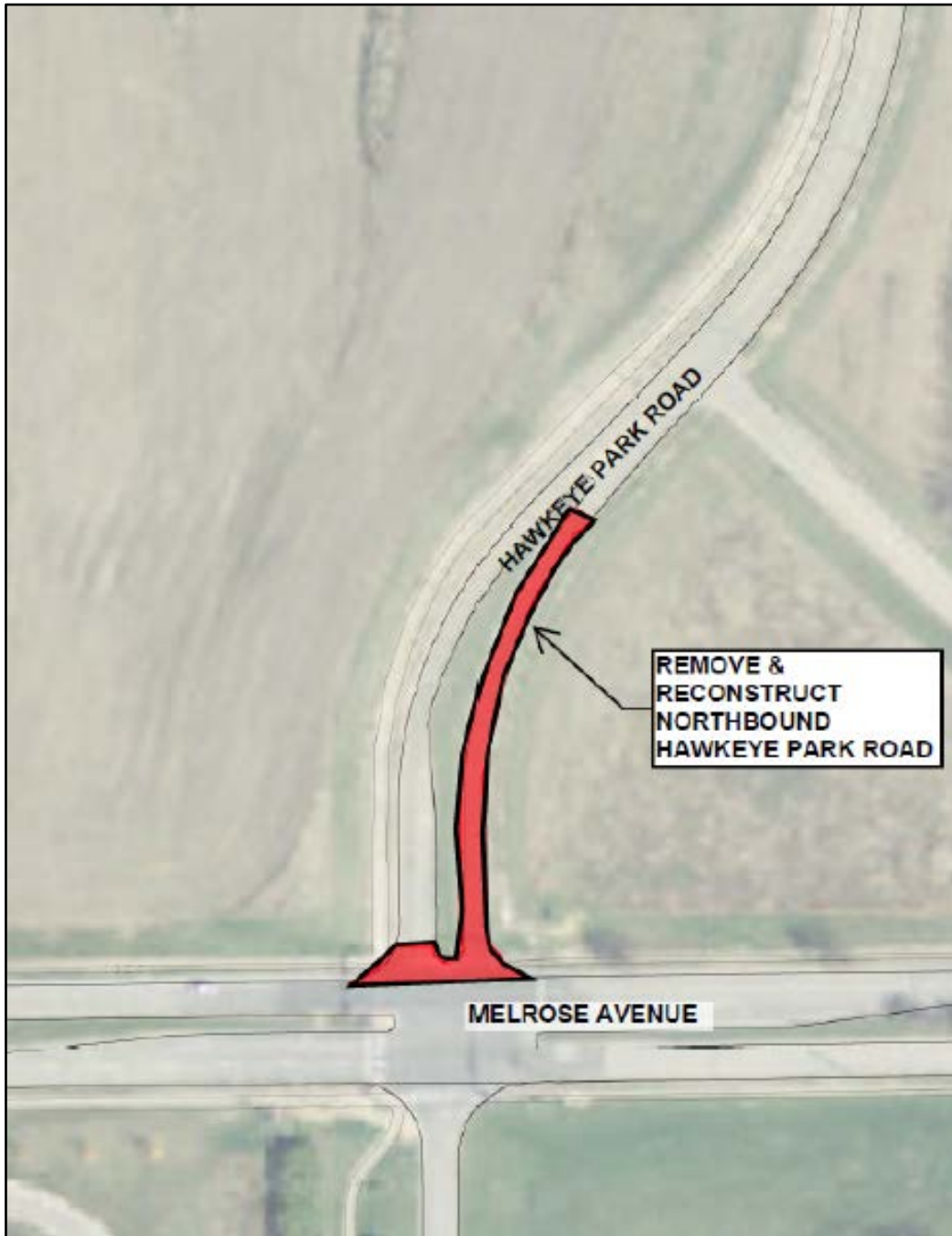
UNIVERSITY OF IOWA
Hawkeye Park Road Phase 1,
Melrose Avenue to Hawkeye Drive

Scheduled for CY 2020



UNIVERSITY OF IOWA
Hawkeye Park Road Phase 2,
Melrose Avenue to Hawkeye Drive

Scheduled for CY 2021



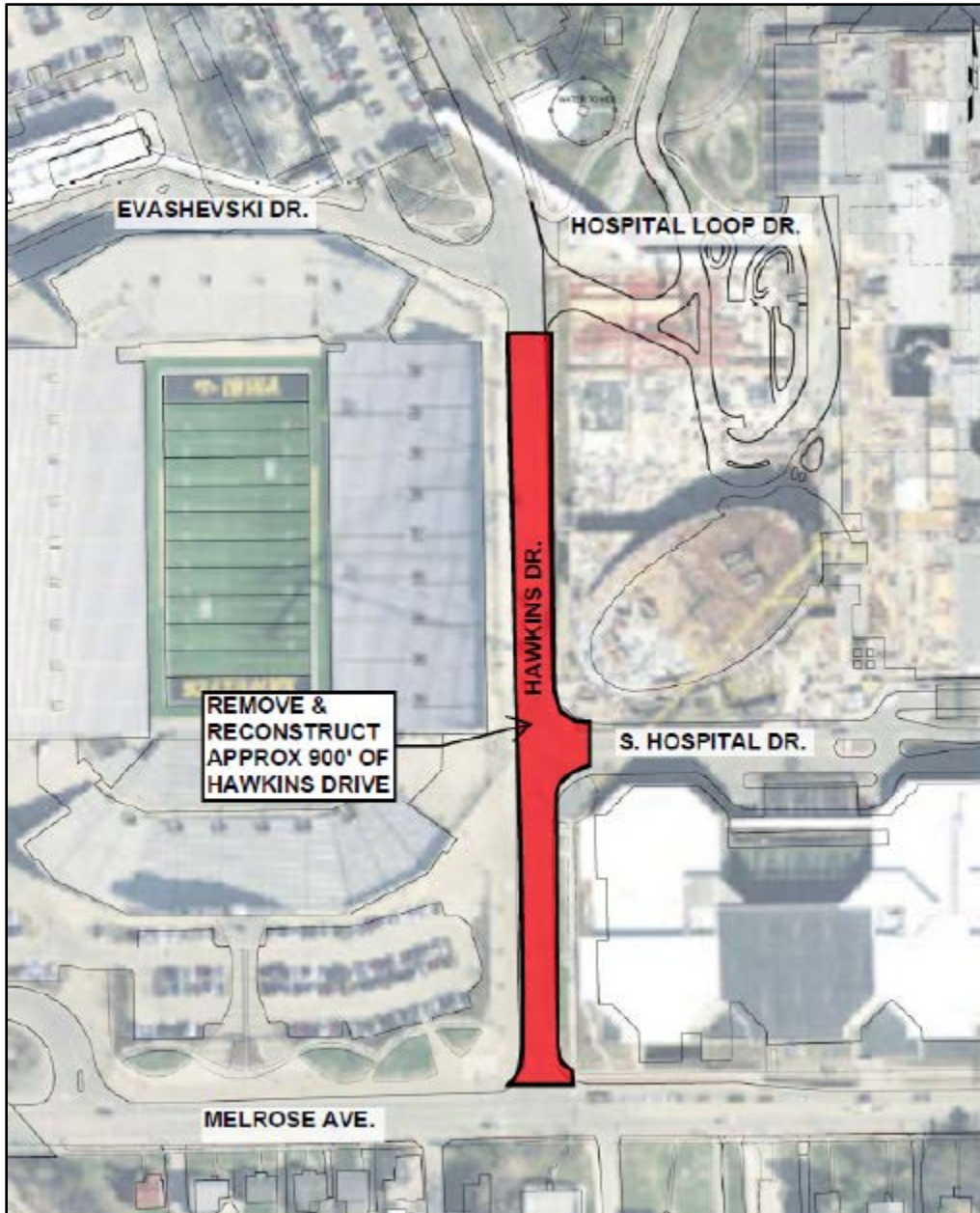
**UNIVERSITY OF IOWA
College of Public Health Pedestrian Bridge**

Scheduled for CY 2020



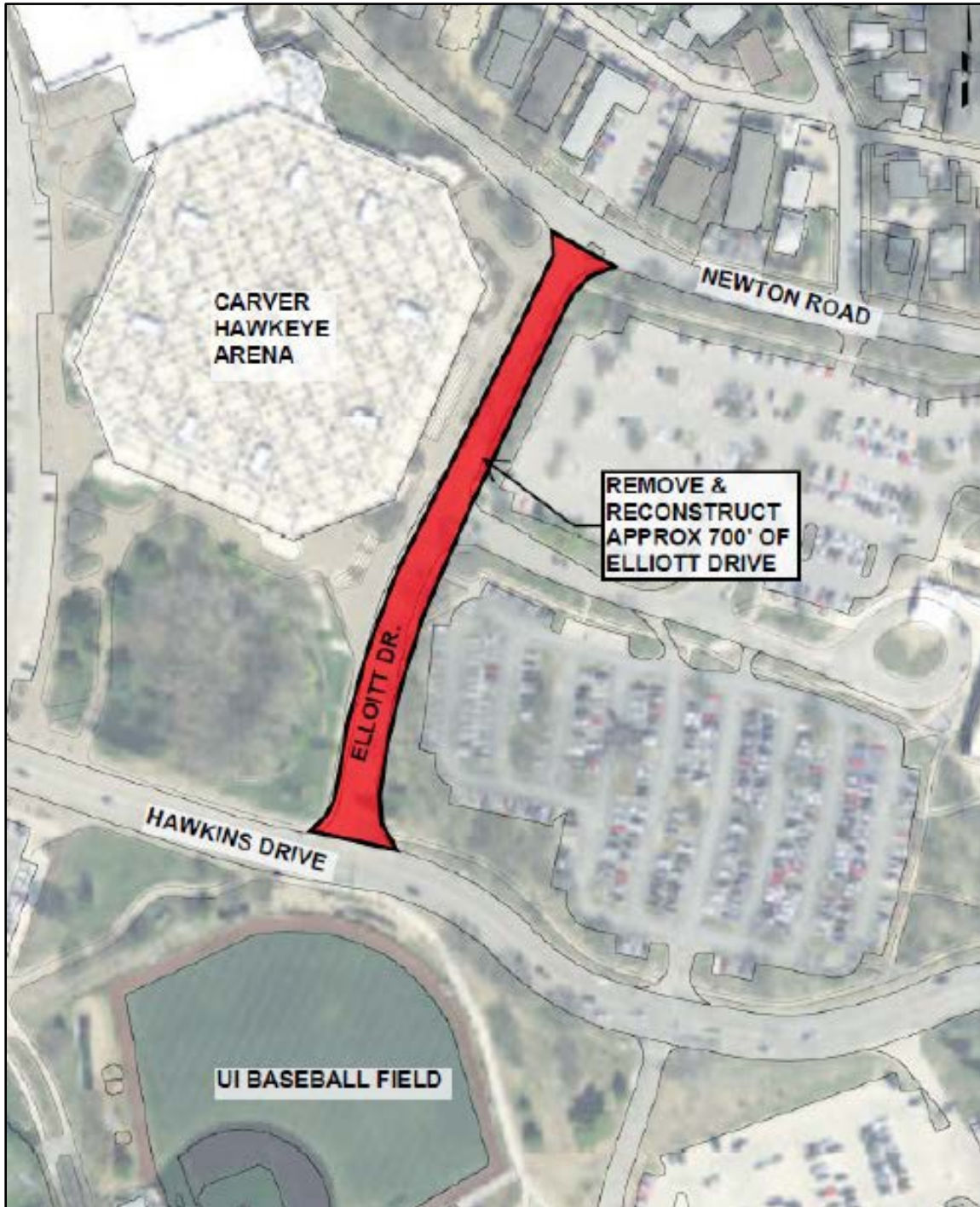
UNIVERSITY OF IOWA
Hawkins Drive – Melrose Avenue to Evashevski Drive

Scheduled for CY 2021

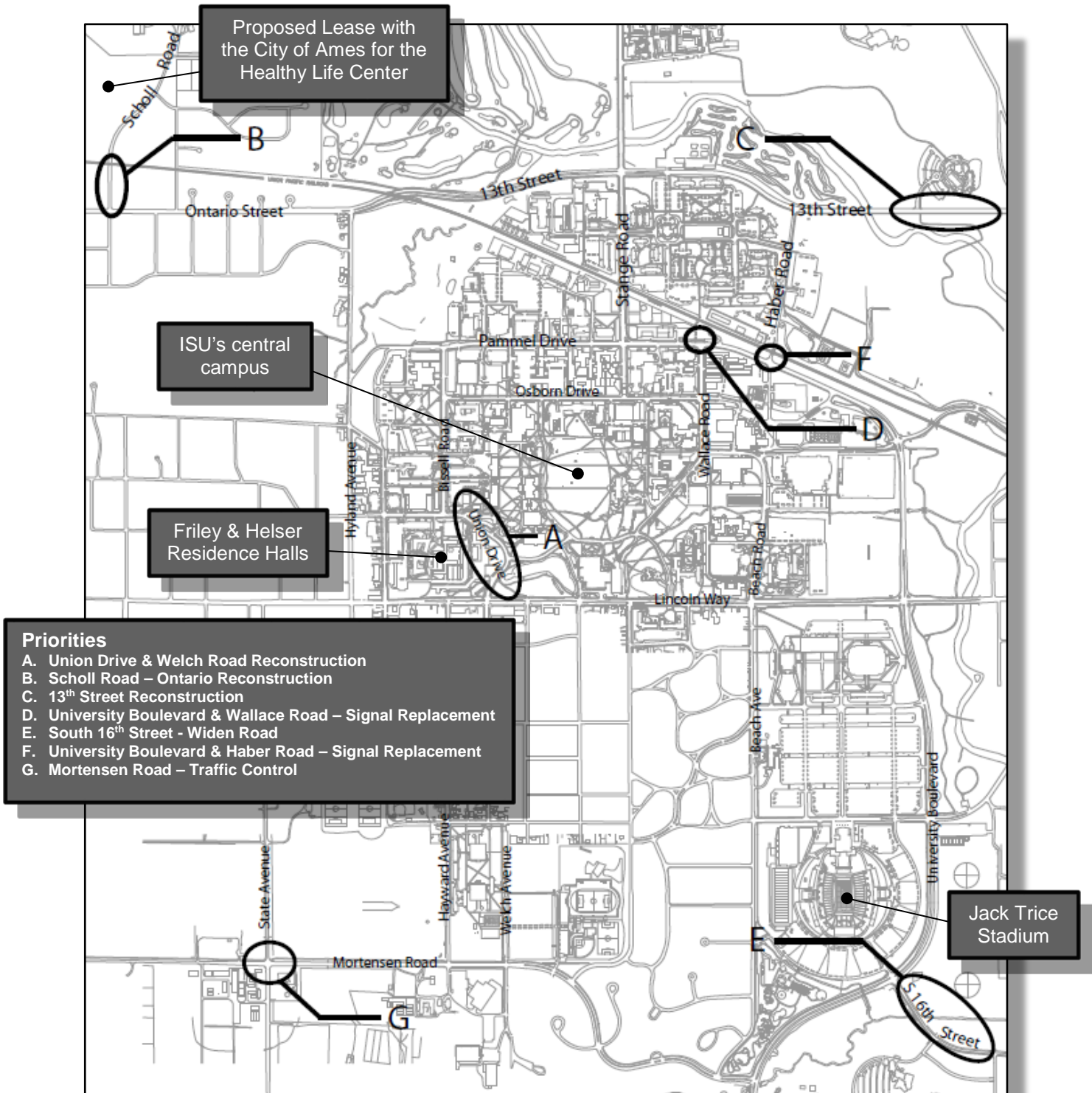


UNIVERSITY OF IOWA
Elliott Drive – Hawkins Drive to Newton Road

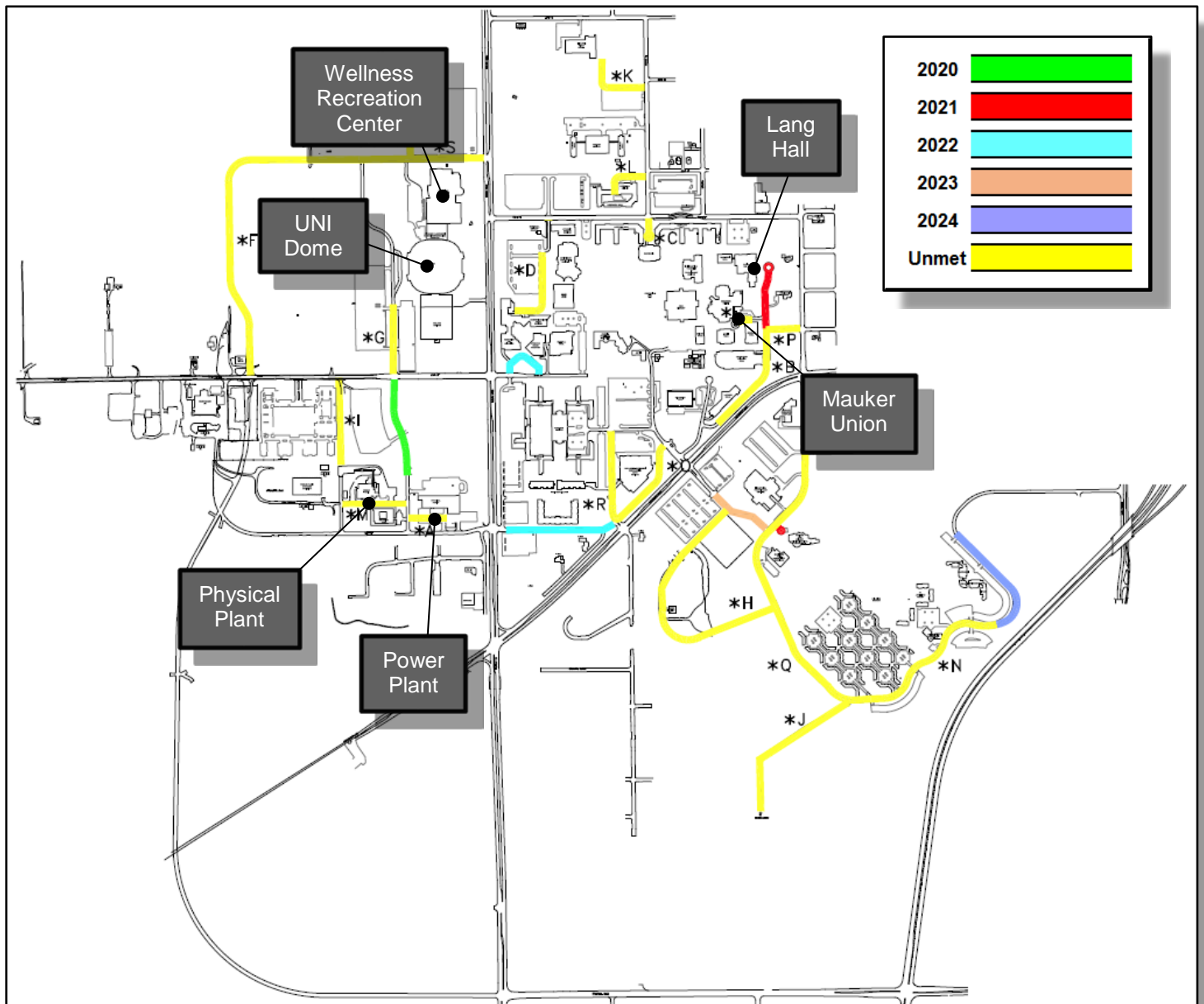
Scheduled for CY 2023



IOWA STATE UNIVERSITY
Scheduled for CY 2020-2024



UNIVERSITY OF NORTHERN IOWA
Scheduled for CY 2020-2024



University of Northern Iowa, central campus



END OF
INSTITUTIONAL ROADS PROGRAM

END OF
ANNUAL FACILITIES REPORT for 2019