STRATEGIC FACILITIES PLAN EXECUTIVE SUMMARY

IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY



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STRATEGIC FACILITIES PLAN PURPOSE AND GOALS

Recently completed projects at lowa State leverage strategic renovations and new construction to provide new spaces for collaboration and innovative teaching and research. These featured projects reinforce the culture of reinvestment and stewardship of existing facilities at lowa State and the importance of elevating student experience and success.



The Student Innovation Center acts as an interdisciplinary hub for students to collaborate and innovate.



Extensive renovations to Marston Hall have created new spaces for studying and socialization.



Construction of the Advanced Teaching and Research Building provides flexible, modern lab spaces.

PURPOSE

The physical campus is one of the Iowa State University's most powerful assets. Since the completion of the 1991 Campus Master Plan, additional program and district studies have been conducted to ensure that shifts in enrollment, evolving academic and student programs, and expanded research maintain the vision of campus development. While a strong ethos of planning has helped to guide growth and steward an amazing physical campus, like many land grant institutions, Iowa State now faces a growing need for major reinvestment in aging facilities to truly embody the mission of creating, sharing, and applying knowledge. Planning of this magnitude needs to look beyond a single department or college and support a more interdisciplinary academic and research delivery practice model.

Iowa State recognizes that the condition, quality, and long-term use of academic and student life facilities is a major concern. These challenges and opportunities are met with limited funding and no comprehensive plan to align the physical campus and assets with the mission and programmatic needs of Iowa State University. The 1991 Campus Master Plan and subsequent planning efforts have identified additional development capacity in the campus core but have not holistically looked at strategies for building and infrastructure renewal that meet identified needs. Where partial or full building renovations have occurred – like Marston Hall, Morrill Hall, Curtiss Hall, and Parks Library – they have successfully transformed the quality, condition, and functionality of the building and interior space.

Knowing the condition of physical space, goals for student success, and opportunities within the campus systems, Iowa State needed a process that focused on developing a realistic, data driven, and implementable plan that identified programmatic needs and leverages existing campus assets within a land use framework for campus landholdings. Iowa State partnered with Ayers Saint Gross, a national design firm with expertise in planning for higher education and Shive-Hattery Architecture and Engineering, a firm based in Iowa who focused on campus infrastructure to develop a Strategic Facilities Plan.

GOALS

The Strategic Facilities Plan is guided by the vision and strategic priorities of the university. The plan has four distinct goals that were developed under the following assumptions:

- Enrollment headcount would be between 30,000-35,000 students
- There would be no significant change to the overall financial resources of the university
- There would be no significant change in research expenditures but shifts in research focus and facility needs should be considered
- There is a small but growing proportion of online credit hours
- There would be no significant change in the amount of on-campus housing
- Open green space areas in the campus core should be preserved
- Pedagogical changes or programmatic space needs would be determined during the planning process by college/unit
- Planning for outlying agriculture properties is excluded.

GOAL ONE

Determine university facility requirements based on projected enrollment, staffing and utilization data, and anticipated programmatic changes. Compare these requirements to the quantity and quality of existing facilities to identify shortfalls and surpluses.

GOAL TWO

Identify and prioritize projects, with an emphasis on renewal and replacement, to address facilities requirements, attract and retain students, faculty, and staff, support programmatic needs of teaching and research, and align with potential sources of funds.

GOAL THREE

Define patterns of land use, site replacement or new facilities, and identify associated requirements for campus green space, circulation, parking, and utilities infrastructure within the established fabric of the campus.

GOAL FOUR

Provide planning and analysis tools for university staff to proactively and dynamically respond to future changes in space needs or facility demands and update the plan for new opportunities.



PROCESS AND ASSESSMENT SUMMARY

PROCESS

The Strategic Facilities Plan consisted of two main phases of work. The initial effort, executed over approximately six months, focused on reviewing the existing facilities condition and space information available as well as recent studies provided by Iowa State University, and physical observations by Ayers Saint Gross to identify preliminary planning themes and to inform a proposal for the more comprehensive planning effort. This review and assessment resulted in preliminary planning themes and informed the development of the proposal for the completion of the planning study. This second phase of work, initially intended to be an 18-month planning effort, identified the steps to complete the plan including the campus and space needs assessments which informed final findings and plan recommendations. However, during this planning phase, the COVID-19 pandemic emerged. While COVID-19 stopped all in-person meetings and slowed the cadence of stakeholder engagement, the planning team continued to meet consistently with workgroups to advance the plan development and recommendations for review by the Provost's Council and the President's Capital Projects Advisory Committee. Long-term changes in the use of space resulting from the COVID-19 pandemic informed discussions but were not included in the plan recommendations.

Furthermore, the planning team also met with institutional governance groups such as the Student Government, the Graduate and Professional Student Senate, the Faculty Senate, and the Professional and Scientific Council to understand key opportunities and challenges for campus from their unique perspective. During multiple meetings throughout the process, the Deans of each college helped to develop and confirm college-specific strategies and recommendations. Other focused meetings around space types, including instructional space and research, were held to develop

50+ Committee and Stakeholder Meetings

1,200+ Survey Responses

300+ Attendees at 4 Open Houses

a better understanding of both current and future aspirations for specific space users in different types of facilities at Iowa State.

The broader campus community was invited to participate during the planning process. An online (digital) survey was distributed to the entire campus community early in the process to solicit feedback on the existing campus and to better understand the desired future character of the educational and social spaces at Iowa State.

While the COVID-19 pandemic extended the project schedule from 18 months to 24 months, the overall process remained organized by three stages of work – Campus Assessment, Concept Development, and Recommendations.





Students, staff, and faculty participate in open house engagement sessions

ASSESSMENT SUMMARY

The Campus Assessment evaluated how the university and its facilities function today. The analysis, tours, and engagement conducted highlighted the opportunities and challenges that serve as the foundation for problem solving for the Strategic Facilities Plan. Findings determined that approximately 60% of the university's general fund space requires some degree of modernization to facilitate cutting-edge research, teaching, collaboration, and learning. The assessment can be grouped under three main planning drivers and categories: facility condition, program and space functionality, and mobility and access.

FACILITY CONDITION

- The condition and quality of facilities is a major concern and the lack of flexibility negatively impacts competitiveness.
 - Roughly half of the classroom, seminar, teaching and open labs, and informal study and collaboration spaces are located in facilities requiring multiple or extensive system replacements and repairs.
 - Roughly half of the greenhouse and vivaria space is located in facilities requiring multiple system replacements and repairs.
 - Over one-third of the research labs, other academic spaces, and academic and research offices on campus are located in facilities requiring multiple or extensive system replacements and repairs.
 - Over one-third of existing assembly and exhibit space is located in facilities requiring multiple to extensive system replacements and repairs.
- There is inconsistent space quality between colleges and departments.
 - The three largest academic colleges by total assignable footage the College of Agriculture and Life Sciences, the College of Liberal Arts and Sciences, and the College of Engineering occupy a disproportionate amount of poor condition space. Additionally, the College of Design occupies a large amount of poor condition space albeit within a smaller total footprint.

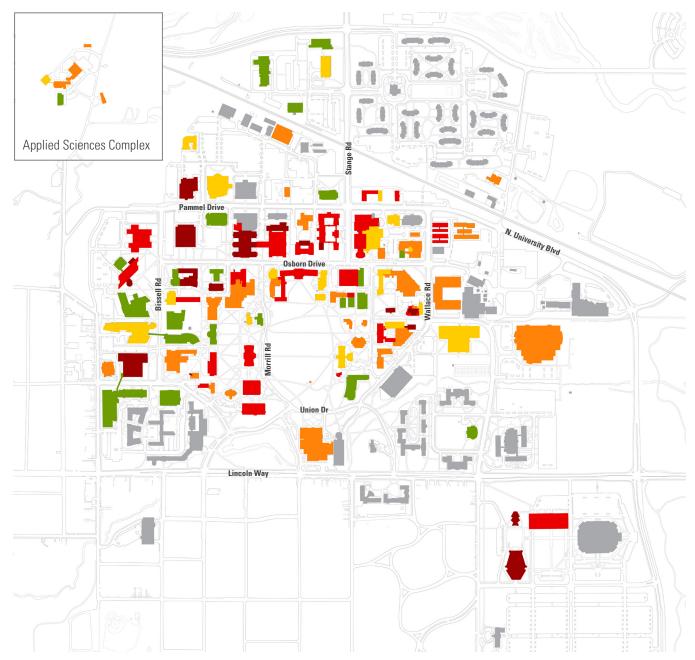
- With the completion of Gerdin Business Building Addition, the Ivy College of Business has the best condition space with all space evaluated as good to fair with need to continued sustainment.
- More than half of the space occupied by the College of Human Sciences and the College of Veterinary Medicine requires multiple system replacements and repairs.
- The Osborn Drive corridor has a high concentration of facilities in the poorest condition.
- Renovations and new construction need to ensure alignment of pedagogy, space typology, functionality, and utilization within buildings.
- Buildings need to provide more daylight and lighting controls to improve occupant wellbeing.
- Inconsistent temperature control in some buildings impacts users' comfort and productivity.

Through the Assessment process, it was recognized that adding significant net new space on campus would further exacerbate the university's maintenance backlog in the future. It was determined that the plan should prioritize facility renewal and replacement over new construction when possible.

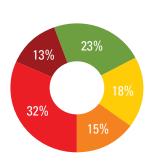
Findings determined that approximately 60% of the university's general fund space requires some degree of modernization to facilitate cutting-edge research, teaching, collaboration, and learning.

FACILITY CONDITION INDEX

EXISTING FACILITIES

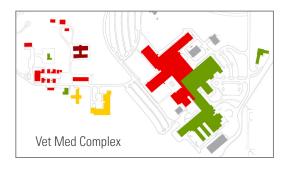


The plan targets 45% of Iowa State's non-residential space



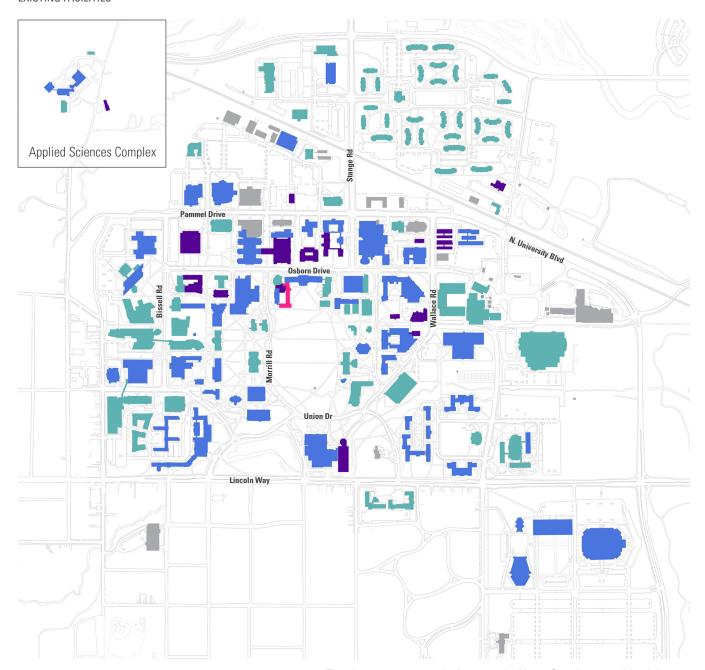
KEY

- Good To Fair
- Fair to Poor
- System Replacement Required
- Multiple Systems Replacements and Repairs Required
- Extensive Systems Replacements and Repairs Required
- Not Assessed

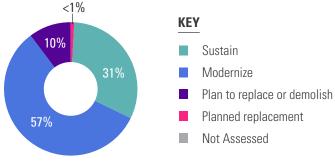


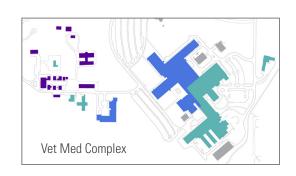
BUILDING FUNCTIONAL ADEQUACY

EXISTING FACILITIES



The plan targets renewal of over 60% of Iowa State's non-residential space





PROGRAM AND SPACE FUNCTIONALITY

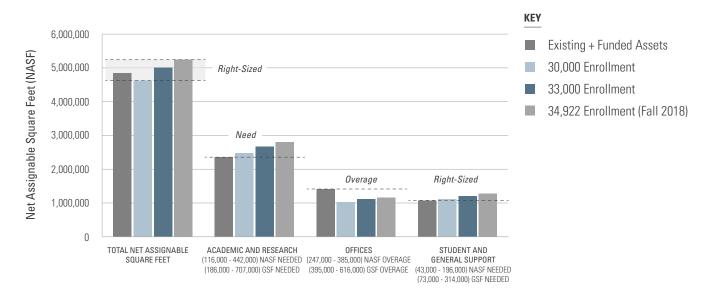
- Iowa State intentionally programs buildings to include multiple space types (classrooms, teaching labs, research, and offices) in a single building which provides connection between students and faculty but can make renovations and building system regulation challenging.
- Space for each college is generally clustered by geographic area on campus and most buildings are occupied by a single college. This organization can help promote departmental adjacency but limits interdisciplinary collaboration.
- The Colleges of Engineering, Design, and Veterinary Medicine are the academic units with the greatest need for additional space. The University Library also requires additional library support and student study space.
 - Engineering requirements are driven by need for teaching lab space
 - Design requires teaching lab, open lab, office, and assembly and exhibit space
 - Veterinary Medicine requires teaching labs, research labs, offices, and student-centered space
- Classrooms and seminar rooms need to be right-sized to provide more space per student in the classroom and align with more active-learning pedagogies.
 - Despite showing an overage in quantities of classrooms there is an overall deficit of classroom square footage in all enrollment scenarios
 - There is a shortage of large, high-capacity classrooms, which are undersized compared to the target NASF per Seat, which generates large space deficits
 - Rooms with 31-50 seats provide the greatest opportunity to right-size
- An existing office space overage is mostly attributed to larger offices in older buildings designed to different space standards. Additional study is needed to determine if an overage in the number of offices exists. Future office analysis should incorporate the new ISU WorkFlex program and identify additional opportunities to modernize the workspace environment.
- There is a need for more common, collaboration, and group and personal study spaces distributed across campus.

- There are evolving needs for health, wellness, and student support infrastructure that will continue to grow and be important to support student success, retention, and recruitment.
- Existing fragmentation and lack of physical adjacencies between departments is a challenge, especially for the College of Agriculture and Life Sciences, the College of Liberal Arts and Sciences, and the College of Design.
- More campus spaces are needed for permanent acknowledgment and showcasing of displays of multicultural, LGBTQIA+, and other identities to support and promote a more welcoming and inclusive environment.
- There is an increasing number of non-traditional and first-generation students that require additional financial, family, and academic support resources.
- Fitness, dining, and social spaces should be distributed across campus to support students, faculty, and staff.
- The campus has beautiful open spaces but lacks variety in open space types and scales that would provide more diverse, flexible spaces and areas for reflection and inclusive events and gatherings.

Overall, the campus is generally right-sized and limited additional space is required. The greatest need is to better align the facilities with the programmatic requirements. The main driver of total space needs is academic and research space, with approximately 186,000 - 707,000 GSF (116,000 - 442,000 NASF) of need identified across the three enrollment scenarios - 30,000 students, 33,000 students, and 34,922 students (the total enrollment in Fall 2018). Academic and research spaces are typically purpose-built to provide the greatest utility to users of the spaces and are not as readily replicable in existing campus spaces, through the renovation of offices for example.

Conversely, the assessment identified an overage of 395,000 – 616,000 GSF (247,000 – 385,000 NASF) for academic, research, and administrative offices. This overage is challenging to address directly because it most likely results from historically larger offices and has been dispersed across many buildings rather than concentrated in a specific facility that could be converted or taken offline. Finally, student and general support spaces are approximately right sized with a need of 73,000 - 314,000 GSF (43,000 – 196,000 NASF) identified. The main need in support spaces is driven by existing deficits for student health and wellness and increasing demand for more and expanded student services from incoming students.

CURRENT AND PROJECTED SPACE NEEDS



MOBILITY AND ACCESS

- Programs with an externally facing component or partnerships should be located on the edge of campus with convenient parking and transportation access whenever possible to improve the experience for visitors.
- Pedestrian mobility is challenging during class changes, especially for people with disabilities. There are conflict areas between pedestrians, bikes, scooters, cars, and buses that need to be addressed.
- Accessibility needs to be considered with all projects on campus.
- Adequate lighting levels should be maintained to provide a safe and secure campus environment while also preserving and reinforcing the structure of campus spaces.
- Buildings would benefit from improved signage and wayfinding.
- Locating parking and vehicular circulation outside of the campus core provides a safer, more pedestrianoriented campus.

Leveraging the assessment findings, the general approach to problem-solving adheres to the following logic:

- 1. Strategically build new or leverage recently created swing space. The lack of existing swing space on campus requires that scenarios either begin with an enabling project to create new swing space or leverage space freed from a previous stage of the scenario outlined to begin problem-solving.
- **2. Renew vacated spaces and backfill** with consolidated programs that benefit from improved physical adjacencies, new interdisciplinary clusters, and direct alignment of space type and use.
- **3. Demolish and replace vacated facilities** that can no longer support the mission and vision of Iowa State.



STRATEGIC FACILITIES PLAN RECOMMENDATIONS

RENEWAL PLAN

Facilities with the highest risk condition and greatest functional inadequacy are the focus of the Strategic Facilities Plan problem-solving. Ultimately, recommendations address slightly less than half of the total substandard space and deferred maintenance backlog through a combination of facility renewal, demolition, and replacement. The strategies seek to minimize the amount of net new space created, reinvest in existing facilities over new construction, and demolish those buildings that can no longer meet the needs of the institution. Renewed and replacement facilities should strive to advance the university's objectives in diversity, equity, and inclusion and sustainability while acknowledging the historic significance of campus facilities. The problem-solving strategies target four major categories: Osborn Drive Stem Renewal, College-focused Renewal, Interdisciplinary Instructional Hubs Renewal, and Student Affairs Renewal.





OSBORN DRIVE STEM RENEWAL

Some of the highest student contact hour buildings on campus concentrate along the Osborn Drive corridor. Many of these structures also have the worst overall facility condition. Programmatically, the number of students, faculty, and staff impacted each semester by these facilities paired with the science, technology, engineering, and math (STEM) teaching and research occurring within them elevates this zone of campus as a critical priority to address as part of the Strategic Facilities Plan problem-solving. As such, the goal for this scenario is to address critical building systems, health and safety, and to improve space functionality by modernizing facilities with high student contact in the STEM fields. Due to the complexity of existing conditions and the extent of facility reinvestment required, the scenario is segmented into three sequential stages impacting the physical and materials sciences, plant sciences, psychology and human sciences, respectively.

COLLEGE-FOCUSED RENEWAL

These focused scenarios have been formulated to allow each stage to occur relatively independently of one another without requiring significant enabling projects between units in different colleges or across the physical campus. This means that colleges will have a greater degree of freedom to implement plan recommendations on their own funding timelines rather than in sequence or coordination with other units enabling Iowa State to maintain flexibility to advance particular strategic priorities as they evolve over time. While each of these scenarios targets unique planning drivers, the goals are to address college priorities and growing, high enrollment programs; to improve unit adjacencies and reduce fragmentation; and to meet quantified space needs while simultaneously improving facility condition and functionality. Individual stages include projects contained within the College of Design, the College of Engineering, the College of Agriculture and Life Sciences, the College of Veterinary Medicine, and the Vice President of Research, respectively.

The Renewal Plan provides a holistic and interdisciplinary look at facility renewal and priority needs. The individual building projects included in the Renewal Plan scenarios have not been ranked in priority order. The sequence in which projects are accomplished will in part depend on the ability to identify funding, and for many projects the need to create swing space for the relocation of building occupants. Science, technology, engineering, and math (STEM) programs are central to the educational and research missions of the lowa State University of Science and Technology and account for a majority of student enrollment. Projects that sustain and enhance STEM programs are expected to be in the forefront of university execution of the Strategic Facilities Plan. In addition, lowa State has several projects in planning that are independent of the plan that begin to address some of the drivers identified in the analysis and Space Needs Assessment. Each of these projects will better align existing and future space with the institutional mission and vision.





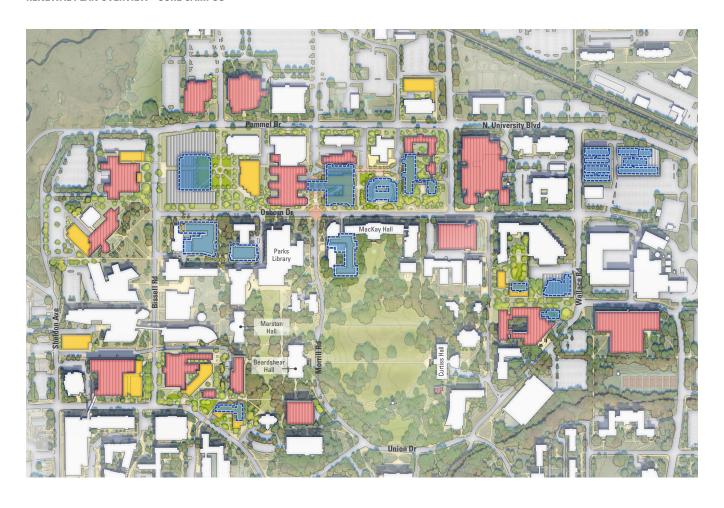
INTERDISCIPLINARY INSTRUCTIONAL HUBS RENEWAL

This scenario consists of two sequential stages that seek to address the renewal of instructional facilities with high student contact hours and to create new interdisciplinary clusters that enhance collaboration, reinforce modern teaching and learning pedagogies, and provide for graduate student and postdoctoral programming and support. While this scenario proposes several new unit adjacencies that have not historically been present and relocates the front door of several academic and administrative programs to new (renovated) facilities, the increased prospect of interdisciplinary collaboration and learning place these units and Iowa State in an exciting position to pursue emergent funding opportunities for innovative teaching and research endeavors moving into the future.

STUDENT AFFAIRS RENEWAL

Iowa State continuously seeks new ways to enhance the student experience, and currently, the institution is prioritizing student health and wellness and student services as key drivers of opportunity for student success, equity, and access. These focus areas demonstrate existing programmatic needs and project an increasing demand from students in the future. As such, the Student Affairs Renewal scenario addresses these priority areas by developing new and expanded spaces that position Iowa State to best meet the growing expectations and needs from students in a consolidated and accessible way. The plan supports this vision for the student experience by allowing for greater integration of health and wellness spaces throughout campus, creating a greater sense of inclusion, welcoming, and belonging in indoor and outdoor spaces, and expanding diversity and equity outcomes by improving adjacencies and enhancing access to functional, high-quality facilities that support changing student demographics and needs.

RENEWAL PLAN OVERVIEW - CORE CAMPUS



RENEWAL PLAN OVERVIEW - VET MED COMPLEX



TOTAL SUBSTANDARD / INADEQUATE SPACE ADDRESSED BY STRATEGIC FACILITIES PLAN: 48% GSF

TOTAL DEFERRED MAINTENANCE BACKLOG (FY19) ADDRESSED BY STRATEGIC FACILITIES PLAN: 49% GSF

KEY MRENEW NEW/REPLACE DEMOLISH PLANNED PROJECTS TUTTURE REDEVELOPMENT SITE

Since adoption of the 1991 Campus Master Plan, the university has built approximately 2.4M GSF of new general fund space, or about 80,000 GSF in new construction per year. By comparison, the Strategic Facilities Plan identifies roughly 2.9M GSF in total facility investment over a similar time period, with over half of this total, approximately 1.5M GSF, dedicated to the renewal of existing facilities. Combined with the more aggressive approach towards demolition of obsolete facilities that fail to meet contemporary functional needs and disproportionately contribute to the deferred maintenance backlog, this reinvestment strategy results in a net increase of only one-third the amount of total new square feet experienced over the 30-year time frame of the last master plan. The amount of facilities investment is projected to remain relatively fixed, but the strategy outlined is a shift away from new construction towards renewal of key building assets and demolition.

Iowa State's existing facilities require critical reinvestment to address building condition and functionality and to avoid significant impacts to the university's competitive advantage. The Strategic Facilities Plan provides a visionary, yet achievable, roadmap on how to begin meaningfully addressing facility challenges

by re-imagining institutional investment strategies that prioritize renewal and replacement over new construction, offering creative ways to think about potential projects, and highlighting unique funding opportunities to execute plan recommendations.

The physical campus environment provides opportunities for serendipitous encounters between students and scholars where creativity happens, ideas are explored, and learning experiences are created. The planned projects and four renewal scenarios are the focus of the Strategic Facilities Plan. However, during the planning process meetings, planning and discussion occurred related to residential life, a multi-use district, athletics, Ames Laboratory, open space, and utilities that are important components of the campus experience, facilities, and systems. The Land Use Framework Plan also defines the best and highest function and potential programs to occur on unique tracts of university land which will guide future development.

Additional opportunities will arise from the funding and implementation of the Strategic Facilities Plan, including the creation of new open spaces and streetscapes to extend the learning environment outdoors and create

RENEWAL PLAN PROPOSED NEW OPEN SPACES



1 GILMAN PLAZA 2 SCIENCE HALL MEADOW 3 PROMENADE OF THE SCIENCES 4 AGRONOMY COURTYARD 5 SCIENCE AND ENGINEERING QUADRANGLE

places for different types of activities. Future, long-term redevelopment sites should incorporate additional considerations related to infrastructure and sustainability during future planning and design. At all scales of planning and design, a commitment to designing welcoming and inclusive environments will foster integrity and student development, growth, and success.

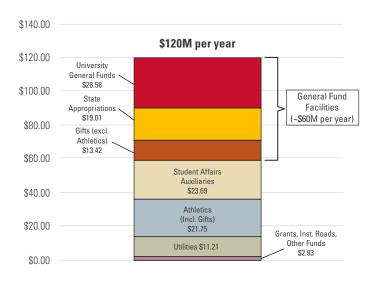
To advance President Wintersteen's charge to become the most welcoming and inclusive campus among all land grant universities, the plan will help to facilitate collaborative problem-solving between students and instructors, integrating technology with more and higherquality spaces for active learning as well as teaming and project spaces, fabrication and maker spaces, innovation and entrepreneurship spaces, and study and collaboration spaces outside of the classroom to achieve diverse learning outcomes. Developing a broader continuum of learning spaces and instructional delivery methods promotes more equitable access to education by creating spaces that help to foster and strengthen a sense of shared community while preserving opportunities for individual autonomy and flexibility to accommodate a diverse range of learning styles and preferences.

Once the Strategic Facilities Plan is implemented, Iowa State will have invested in the renewal of over 1.5 million GSF of existing facilities, nearly 1.4 million GSF of new and replacement construction, and over 730,000 GSF of demolition resulting in a net new total increase in general fund space of just over 660,000 GSF. At the same time, this renewal will have modernized nearly half of the university's functionally inadequate and substandard spaces while addressing an equal amount of existing deferred maintenance backlog within poor condition facilities. The total annual expenditures to execute this plan will vary by the pace of implementation and

the scenario(s) pursued, but the cost to complete all of the projects proposed in the plan in a 30-year time frame would likely fall in the \$40 – 45 million range. Additionally, as a result of the proposed Strategic Facilities Plan and an estimated 0.75% baseline increase in chilled water demand each year (based on campus historical flow meter data), additional campus chiller capacity will need to be available in approximately 18 years.

While the estimated annual expenditures to implement the renewal plan may, at first, seem unattainable, a review of Iowa State's historical construction and facility investment trends demonstrate that the recommendations are possible within historical capital project spending. Since fiscal year 2011, investments in total capital project expenditures have averaged approximately \$120M per year, with about half (\$60M) of those funds being applied specifically to general fund facilities. Funding levels that make the plan's renewal strategies attainable are vital to the future success of the university.

IOWA STATE UNIVERSITY - ANNUAL CAPITAL PROJECT EXPENDITURES FY 2011 - 2020, MILLIONS



RENEWAL PLAN SUMMARY BY SCENARIO

RENEWAL PLAN DETAILS			EXISTING CAMPUS (GENERAL FUND) 6,993,495 GSF			SPACE TO REPLACE/MODERNIZE (GEN FUND): 4,723,141 GSF		
SCENARIO FOCUS	ESTIMATED SCENARIO COST	TOTAL DURATION	RENEW GSF	NEW GSF	DEMO GSF	NET NEW GSF	REPLACE/MODERNIZE GSF ADDRESSED	% TOTAL ADDRESSED
PLANNED PROJECTS	\$342.4M TOTAL	INDEPENDENT	71,500	452,600	222,190	230,410	293,690	6.2%
OSBORN DRIVE STEM RENEWAL	\$578.1M TOTAL ~\$18.6M /YR	31 YEARS	508,493	490,500	290,870	199,630	799,363	16.9%
COLLEGE-FOCUSED	\$412.7M TOTAL	INDEPENDENT	518,611	262,167	150,184	111,983	668,795	14.2%
INTERDISCIPLINARY INSTRUCTIONAL HUBS	\$153.4M TOTAL ~\$9.0M /YR	17 YEARS	263,961	85,000	66,474	18,526	330,435	7.0%
STUDENT AFFAIRS RENEWAL	\$147.7M TOTAL ~\$12.3M /YR	12 YEARS	130,402	180,050	42,611	137,439	173,013	3.7%
TOTAL RENEWAL PLAN IMPACT		1,492,967	1,470,317	772,329	697,988	2,265,296	48%	

NEXT STEPS

The Strategic Facilities Plan establishes a planning model for Iowa State University, creates a vision for addressing facility challenges and programmatic needs for the campus, and provides a framework on which future development and decisions should be based. Through an open and inclusive process, a planning framework was developed that addresses major challenges and aligns with the university's strategic goals. The recommendations in this plan are rooted in data, supported by stakeholder engagement and buy-in, and continue a history of successful facility renewal at Iowa State. Implementation of this plan will have long-term impacts for the campus. In addition to improving the condition of facilities, each project supports Iowa State's goals to increase student success, grow research, elevate sustainability, and provide a more welcoming and inclusive campus.

The Strategic Facilities Plan provides a clear vision but reinforces flexibility and affordability to ensure success and support the strategic goals. The Strategic Facilities Plan, however, recommends an implementation toward meeting programmatic and facility needs primarily through renovation of existing facilities rather than through the construction of new facilities. A key next step is developing a financial strategy and fundraising plan to accomplish these important projects. It is likely that many recommended projects will be incorporated into the university's regularly updated capital plan and will be funded through a variety of potential sources including general funds, university debt, auxiliary funds, fundraising, and state appropriations. Another important step is continuing to evaluate policy and operational opportunities that will impact the amount and use of space over time. Finally, additional planning and feasibility studies will refine programmatic needs and confirm the viability of renovations.

Continued investment in sound planning, sustainable buildings, and flexible campus infrastructure will help the university adapt and thrive to support an ambitious mission. The Strategic Facilities Plan is an intentionally flexible framework for the physical campus that will help Iowa State respond to shifts in enrollment, ongoing impacts from COVID-19, and the strategic goals. While unanticipated development opportunities and needs may inevitably arise, the land use plan and associated strategies provide the flexibility to ensure new projects align with the university's strategic mission and vision.

