

Fall 2026

Fiscal Year 2028 Budget Information

5- Year Capital Request Planning and Capital Outlay Request



Submitted by:

MICHIGAN STATE
UNIVERSITY

MICHIGAN STATE UNIVERSITY

October 30, 2026

Jennifer L. Flood
State Budget Director
State Budget Office
State of Michigan
Lansing, Michigan 48909

Dear Ms. Flood,

In accordance with the State Budget Office instructions, an update of Michigan State University's Five-Year Capital Plan and the State Fiscal Year (SFY) 2028 Capital Outlay request, Appendix G, is posted at the following institutional website:

<https://capitalspace.msu.edu/training-and-resources/capital-outlay>

The SFY2028 Capital Outlay request has also been submitted via SIGMA. The Five-Year Capital Planning document follows your instructions and the academic direction of the university.

Construction is underway at the engineering and digital innovation center, named this year as the **Leinweber Center for Engineering and Digital and Innovation**. The project was appropriated \$30 million from the school aid fund in the SFY2024 Higher Education budget and an additional \$30 million from the State Building Authority as described in the SFY2026 Capital Outlay appropriation. We are grateful for the state support toward fulfilling the vision of the Leinweber Center as a gateway to Michigan's digital future, creating interdisciplinary opportunities not possible in current facilities, advancing innovation, and preparing Michigan State students as a future-ready workforce. The Leinweber Center and its transformational vision is reflective of what we can accomplish when we connect university, state, and philanthropic investments.

Additionally, this year MSU completed the **renovation and expansion of MSU's Greenhouse and Dairy Facilities** with \$53 million in state support through Public Act 166 of 2022. These critical projects not only enhance industry-relevant research and teaching but also support Michigan's farmers and consumers. The investment in these facilities enabled MSU to be competitively successful in the award of an infrastructure grant from the United States Department of Agriculture (USDA) Research Facilities Act Program (RFAP) to move forward with Phase 2 of greenhouse improvements, and to advance the expansion of the MSU anaerobic digester and a renewable natural gas facility. These projects will continue the advancement of teaching and critical research that will benefit the state of Michigan and its economic development. We are grateful for the support toward these two significant investments in the university and state's future.

While our Five-Year Capital Plan outlines a range of capital needs, **MSU's top priority for Capital Outlay support is the College of Veterinary Medicine Large Animal Hospital**. The new Large Animal Hospital will preserve Michigan's access to advanced



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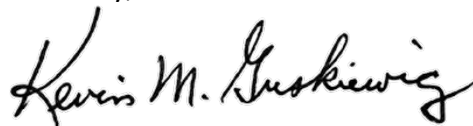
veterinary care for livestock, horses, and companion farm animals, while preparing the next generation of veterinarians and veterinary nurses. The project directly addresses Michigan's veterinary workforce challenges, particularly in rural and agricultural communities, by investing in clinical facilities where students learn, veterinarians refer complex cases, and researchers develop better treatments.

MSU respectfully requests the maximum allowable state investment for this critical statewide resource through the capital outlay process. As is current practice, the maximum state share for this project would be \$30 million. As home to Michigan's only college of veterinary medicine, MSU connects advanced clinical care with the education of future veterinarians and veterinary nurses. The Large Animal Hospital also provides advanced specialty and 24/7/365 emergency care, making the hospital indispensable to animal owners, farmers, and referring veterinarians throughout the state. University leadership has identified the Large Animal Hospital as a priority to fulfilling MSU's tripartite mission of education, research and outreach.

MSU's Five-Year Capital Plan is strategically aligned with areas of high enrollment demand, strong national reputation, and growing research —particularly in STEM fields such as biomedical and biological sciences, engineering, plant and environmental sciences, veterinary and health sciences, energy and water, and the arts—while advancing our land-grant commitment to access, inclusion, excellence, and impact. Each project contributes directly to statewide goals of developing a skilled workforce and a resilient economy.

As we look to the future, MSU is well-positioned to accelerate our contributions and expand our impact as a premier research institution with unwavering commitment to the people of the State of Michigan through access and engagement embedded in our land-grant mission.

Sincerely,

A handwritten signature in black ink that reads "Kevin M. Guskiewicz". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Kevin M. Guskiewicz, Ph.D.
President

C: Provost and Executive Vice President for Academic Affairs Laura Lee McIntyre
Acting Executive Vice President for Administration Mike Zeig
Vice President for Government Relations Katie John
Senior Vice President, Chief Financial Officer and Treasurer Lisa A. Frace
Associate Vice President, Finance, Christopher M. Harkins
Assistant Provost and Executive Director, Capital Planning and Space
Administration, Barbara Kranz

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5-Year Capital Request Planning
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Fiscal Year 2028 Budget Information

Michigan State University

Five-year Capital Planning and Capital Outlay Request

Preface

Michigan State University's capital plan is guided by 1) MSU's strategic plan, *MSU 2030: Excellence for Global Impact*¹, 2) *Vision 2050: An Integrated Facilities and Land Use Plan*² and 3) the *Capital Planning Framework*, which integrates academic, support, human resources, fiscal, and space and facility infrastructure planning. *Vision 2050*, adopted by the MSU Board of Trustees in December 2023, provides a framework for future development on the university's campuses and landholdings. While flexible in nature, *Vision 2050* recommendations affirm MSU's goals of academic excellence; student success; access, opportunity and excellence; novel partnership opportunities; resilient and sustainable land use; and a mission that advances the state-wide economy. These goals are embedded throughout the planning for state-wide facilities and across each of the East Lansing campus precincts, resulting in distinct recommendations around the buildings, mobility networks, open spaces, and utility systems that will support the university's next generation of development.

The planning process includes near- to long-term strategy development to ensure the university has the space and facility resources necessary to carry out its mission. This is accomplished within the context of continuing to identify ways to best utilize our resources of people, dollars, and space. Strategy development takes into consideration internal and external challenges and opportunities, the capacity to be flexible and nimble, allowing for responsiveness to new opportunities, and the dynamic and evolving nature of higher education.

Michigan State University's strategic plan, *MSU 2030: Excellence for Global Impact*, was refreshed in August 2025. Originally launched in 2021, the plan balanced the benefits of a stable framework with the need for adaptability by incorporating a refresh process several years into its implementation. The 2025 updates reflect our achievements and the evolving context of MSU and the world with refined goals, objectives, and key initiatives that sharpen our vision and accelerate our pursuit of excellence.

MSU 2030: Excellence for Global Impact, the refreshed plan, centers the unique character of the Spartan community, known for its collaborative, innovative spirit and uncommon will to make a difference. The strategic plan identifies six strategic priorities, providing the scaffold for broad, outcome-oriented goals, related objectives, key actions/initiatives, and relevant indicators of success. The plan underscores MSU's strength as collaborative thinkers and doers, moving boldly as one team on enduring core ideas:

¹ See [Strategic Plan | Michigan State University \(msu.edu\)](https://msu.edu/strategic-plan)

² See [Vision 2050 | Michigan State University \(msu.edu\)](https://msu.edu/vision-2050)

- **Student Success:** Provide an exceptional educational experience for all students that prepares them for postgraduate success, achieving high graduation rates with reduced opportunity gaps.
- **Staff and Faculty Success:** Support career development and well-being of staff and faculty at MSU, focusing on creating a best-in-class workplace culture and welcoming environment in which excellence and opportunity thrive.
- **Discovery and Innovation for Impact:** Be a leader in developing transdisciplinary solutions to ecological and human problems affected by social, economic, political, climate and environmental changes.
- **Sustainable Health:** Enhance quality of life for people everywhere by comprehensively leveraging expertise and research activity to improve health and the systems that affect health.
- **Stewardship for a Sustainable Future:** Provide exemplary stewardship of institutional resources to foster the long-term sustainability of MSU's education, research, and outreach and engagement programs.
- **Access, Opportunity and Excellence:** Be a national leader in promoting access, opportunity and excellence, and address barriers to success for all on our campus and beyond.

I. Mission Statement

For 170 years, Michigan State University has been advancing knowledge and transforming lives through high-impact, innovative teaching, research, and outreach initiatives. Today, MSU is a major public research university with global reach and extraordinary impact, continuing its mission to help students become responsible, knowledgeable, and productive citizens.

We are an inclusive, academic community known for our traditionally strong academic disciplines and professional programs and our liberal arts foundation. Our cross- and interdisciplinary enterprises connect the sciences, humanities, and professions in practical, sustainable, and innovative ways to address society's rapidly changing needs.

As a public, research-intensive, land-grant university, funded in part by the State of Michigan, our mission is to advance knowledge and transform lives by:

- Providing outstanding undergraduate, graduate, and professional education to promising, qualified students to prepare them to contribute fully to society as globally engaged citizen leaders.

- Conducting research of the highest caliber that seeks to answer questions and create solutions to expand human understanding and make a positive difference, both locally and globally.
- Advancing outreach, engagement, and economic development activities that are innovative, research-driven, and lead to a better quality of life for individuals and communities, at home and around the world.³

Since the mid-1960s, MSU has been recognized as a top academic institution and is a member of the prestigious Association of American Universities, consisting of a group of elite research universities in the United States and Canada. MSU is one of only 23 land-grant universities, and one of 38 public universities with membership in the Association of American Universities. MSU's success is further evidenced by its consistent inclusion among the top 30 public universities, and in 2026 was ranked in the top 6% of Best Global Universities according to U.S. News & World Report. MSU has 33 programs featured in the top 25 nationally by U.S. News and World Report, including five ranked number one. Also in 2025, Washington Monthly ranked MSU among the top 50 institutions in "Best Colleges for Research".

Research

MSU continues to ensure that research programs grow, providing stimulus for economic development and workforce development while creating a culture of innovation and creativity that maintains the university's international competitiveness and reputation. MSU is a leader in creating knowledge for the 21st century, routinely receiving in excess of \$720 million in sponsored awards annually, focused in areas such as nuclear physics, food security, plant sciences; sustainable health sciences; material sciences, basic sciences such as chemistry, microbiology, and molecular genetics; computational sciences, and population and the environment, including food, water, and energy. According to National Science Foundation Higher Education Research and Development data, MSU's research expenditures for 2025 fiscal year were \$992 million, putting the institution on target to achieve its *MSU 2030 Strategic Plan* goal of \$1 billion in expenditures by 2030. Contributing to MSU's over ten-year long increase in research expenditures, is the success of the university's Global Impact Initiative (GII). Through the Global Impact Initiative, launched in 2014, MSU has recruited some 100 new faculty investigators to the MSU research team to help accelerate finding solutions to the world's toughest problems. Phase two of the initiative, GII 2.0, was approved by the Board of Trustees in June 2024 and adds an additional 20 new faculty positions, in disciplines such as space electronics, computational biology and health services research. The long-term investments in faculty hiring from the Global Impact Initiative, along with sustained investment in research infrastructure, positions MSU to exceed its strategic plan goal of \$1 billion in annual research expenditures by 2030 and make progress toward finding solutions to the most pressing societal challenges.

³ See [MSU Mission Statement | Board of Trustees | Michigan State University](#)

Education

This fall, MSU enrolled 32,183 in-state resident undergraduate students. At the same time, MSU draws students from all over the state, country, and world. MSU enrolled individuals from all 83 counties in Michigan, all 50 states in the country, and 127 countries this fall. In an ongoing effort to uphold its commitment to access, MSU has established strong and substantial financial aid programs to assure student access to high-quality MSU programs. MSU routinely enrolls in excess of 8,000 Pell Grant recipients, representing 20% of the undergraduate population. Additionally, in 2024-25, MSU launched Spartan Tuition Advantage. In 2026, in an effort to continue to expand college access and affordability for Michiganders, MSU expanded eligibility for the program, which supports the university's commitment to making an MSU education within reach for all Michigan residents, by covering the full cost of tuition for all in-state, Pell Grant-eligible students who have a family income of \$75,000 or less. As part of its on-going commitment to support student success and promote financial stability, \$415 million was awarded in financial aid in 2024, with 72% of freshmen receiving aid.

In 2025-2026, with the support of a Michigan Department of Lifelong Education, Advancement and Potential, or MiLEAP grant, the MSU Office of Undergraduate Education's Strategic Retention Unit created the Spartan Undergraduate Completion and Emergency Fund Application to bring together a cross-collaborative group of student support units, offices and colleges to streamline the application process for emergency and completion aid. In its first year, more than 1,000 students facing financial crises or barriers to graduation received almost \$2 million in support. Further enhancing accessibility, MSU launched the Native American Tuition Advantage Program for Fall 2025, aiming to eliminate financial barriers and increase enrollment among historically underrepresented Native American students. The program offers in-state tuition rates to eligible out-of-state Native American students.

At Michigan State, we believe every student we admit has the ability to thrive and graduate. As established in the strategic plan, student success is the measure of an institution's ability to provide a relevant curriculum and empathetic environment that supports all students' psychological, social, emotional, physical, cultural and financial well-being to enable all students to learn, thrive, graduate and succeed after graduation. Understood this way, student success is not solely a measure of the academic achievement of individual students or students collectively; rather, measures like academic standing, persistence, graduation, sense of belonging, time-to-degree, and placement rate indicate how well an institution supports its students. MSU is a leader in student success initiatives and as a member of the University Innovation Alliance, we are part of a group of collaborative innovators determined to share knowledge and scale successes to ensure that students can graduate and contribute to America's economic competitiveness.

MSU provides diverse learning experiences that blend the theoretical with the practical, combines curricular and co-curricular experiences, and instills an entrepreneurial mindset in its students. Student learning experiences include study abroad, hands-on research engagement, service learning, internships, co-ops, field placement, student teaching, and clinical placement during their degree program. All complement a variety of classroom experiences to provide rich learning opportunities. The entrepreneurial ethos fits our progressive pedagogy preparing students for real-world careers demanding both technical and disciplinary expertise along with

connective interpersonal skills. Curricular and co-curricular experiences aim to help students develop deep knowledge within a specific content area as well as a broad set of skills across content areas focused on critical thinking, analytical reasoning, and communication.

Our collective efforts to enhance the student experience have resulted in a six-year graduation rate of 80% in 2025. MSU has a goal of increasing that rate to 86% by 2030. MSU is coupling its efforts to improve graduation rates with a strong commitment to accessibility and student success. MSU's graduation rate is particularly noteworthy when also considering it is among just a handful of schools in the country with an acceptance rate of higher than 65% for first-time undergraduate applicants – MSU admitted 86% of first-time undergraduate applicants in 2026. In terms of employability, 93% of students who earn bachelor's degrees from MSU are immediately employed or pursue additional education; as undergraduate students, over 75% graduate from MSU having already completed an internship. MSU's efforts have been recognized nationally, earning 4.5 out of 5 stars from Money magazine based on the combination of quality, affordability, and student outcomes.

Global Presence and Outreach

As the nation's premier land-grant university, Michigan State University extends its teaching, research, and outreach mission around the world. International engagement strengthens MSU's research reputation, attracts talented students and faculty, and connects the university with partners addressing shared global challenges. The 2026 Times Higher Education World University Rankings placed MSU 93rd among 2,297 institutions worldwide, 12 places higher than the previous year and its highest ranking in five years. MSU is ranked 35th among the 168 U.S. institutions, and 10th among the 18 Big Ten institutions. Our global ranking helps MSU recruit top students and faculty from around the world, generate revenue and funding internationally, and position MSU as a leader on the world stage. MSU is ranked #2 for study abroad among public institutions, by U.S News & World Report for 2026, offering more than 350 education abroad programs on all seven continents. In addition to their invaluable cultural and academic contributions on campus, MSU's 4,400+ international students and scholars have a \$208.8 million contribution to the Greater Lansing economy, supporting more than 2,058 jobs in the 2024-25 academic year. Approximately 1,600 faculty members are involved in international research, teaching, and service projects and programs, and MSU maintains partnerships with more than 325 international institutions in over 80 countries. MSU receives \$73 million in external funding for international work each year — about 7% of total external research funding annually. We continue to expand our reach around the globe through:

- Center for Global Learning and Innovation. The Center, new in 2024, is a dynamic hub that reinforces MSU's commitment to internationalization by bringing together key programs and fostering collaboration across colleges and departments, while enhancing opportunities for students, faculty, and staff to engage with global learning. With a focus on innovation, collaboration, and faculty development, the center provides structure and resources to support a holistic global learning strategy for success in a modern, globally connected society.

- The Alliance for African Partnership (AAP). The AAP is a collaborative and cross-disciplinary platform for addressing today's global challenges. AAP is developing new models of engagement for shared research while enhancing the resources and capacities of African universities, institutions, and scholars. In January 2026, the Alliance for African Partnership (AAP) received an \$895,000 grant from the Carnegie Corporation of New York for its REIMAGINE initiative, which supports innovative graduate education and collaborative doctoral training focused on artificial intelligence (AI) across African partner institutions. In February, AAP welcomed its largest cohort yet of African Futures Research Leadership Program scholars, with 14 researchers focused on AI and sustainable futures. Together, these efforts strengthen research partnerships, develop emerging expertise, and support collaborative approaches to shared global challenges.
- Asia Hub. The Asia Hub program is redefining our conception of institutional partnerships and collaboration models in Asia. The program offers an enhanced platform for expanded faculty and student engagement in Asia by engaging key partners, exploring new strategies to co-fund and leverage investments, and facilitating collaborations to advance integrated research and novel academic programming. Asia Hub partners and research teams create a synergistic network of networks within and across central Eurasia, East Asia, South Asia, Southeast Asia, and the world while building capacity among partners to address global challenges.

Through international partnerships, education abroad, and collaborative research, MSU connects Michigan with the people, knowledge, and ideas shaping an increasingly interconnected world. These efforts advance the university's teaching and research missions, create opportunities for cross-cultural learning, and strengthen relationships that benefit Michigan and the broader global community. By extending its land-grant mission across borders, MSU contributes to solutions that address shared challenges and create opportunities for future generations.

State and Community Presence and Outreach

As a land-grant university, Michigan State University is committed to serving Michigan's people, industries, and communities through education, research, and public engagement. MSU works alongside community organizations, businesses, government agencies, and industry partners to address local needs, expand educational opportunities, strengthen regional economies, and improve quality of life across the state. This commitment is reflected in MSU's nationally recognized approach to service-learning, known at MSU as community-engaged learning, which integrates community partnerships with classroom instruction to enrich the student learning experience, teach civic and social responsibility, and strengthen communities. For the third consecutive year, U.S. News and World Reports has ranked MSU as number 1 in service-learning for public institutions and number 6 overall.

- Community-Engaged Learning. Each year, more than 25,000 students register for community-engaged learning opportunities in and beyond the classroom. Examples of these opportunities include: The Community Engaged Scholars Program (CESP), which

provides undergraduates with opportunities to engage in sustained, reciprocal partnerships with Michigan-based community organizations; Fill the Bus, an annual event to give local students and families an equal start to the new school year; Stuff the Library, the annual event to raise funds to bring books featuring characters of diverse backgrounds into the Lansing School District; and MSUvote, empowering student voters and increasing democratic participation.

- **Lansing Spartan Scholars.** Launched in 2025 through a partnership between MSU and the Lansing community, the Lansing Spartan Scholars (LSS) Program helps local students access higher education and succeed at MSU. Support includes scholarships and financial aid resources, academic advising, peer mentoring, internships, career development, and service-learning experiences. By connecting students with Lansing businesses, municipalities, and community organizations, the program helps develop local talent, strengthen civic engagement, and build pathways that benefit the Greater Lansing community.
- **First Amendment Law Clinic.** The College of Law's First Amendment Law Clinic celebrates 15 years of educating students in 2026. It is the only law school clinic in the nation that focuses on defending student press and speech rights, and it does so pro bono. The clinic has educated almost 14,000 high school students across 47 Michigan high schools. As part of the clinic, MSU law students teach workshops that serve a variety of school district types across the state. In addition to gaining experience educating, the clinic has also allowed MSU law students to be involved in important speech cases and deliver victories for First Amendment freedoms.
- **REO Town – Flowing with Innovations.** In 2025, MSU partnered with Lansing community organizations and economic development leaders to help advance the REO Town initiative. In January 2026, the effort secured \$4.35 million in placemaking grant funding through the Michigan Talent Partnership Program, administered by the Michigan Economic Development Corporation (MEDC), alongside a \$1 million commitment from the city of Lansing. Led by the Lansing Talent Partnership Consortium (LTPC), the initiative brings together MSU's University Outreach and Engagement (UOE), Center for Community and Economic Development (CCED), the MSU Research Foundation, and National Charrette Institute, alongside local partners, to attract and retain talent by revitalizing public spaces and expanding opportunities for REO Town residents. MSU will further support the initiative by engaging students and faculty in planned improvements around the River Trail, Elm Street, and Washington Avenue, addressing community priorities ranging from creative and performing arts to housing, entrepreneurship, and inclusive development.
- **International Business Center and Michigan Export Growth Program.** The Broad College of Business's International Business Center (IBC) allows students to gain hands-on experience by helping Michigan companies expand into global markets, providing education, research and assistance on international business and trade. In partnership with the Michigan Economic Development Corporation, IBC's Michigan Export Growth Program engages students in consulting projects that help small- and medium-sized

Michigan businesses assess international demand for their products. From October 2023 through September 2024, the center's programs assisted 192 small- and medium-sized businesses, facilitated an estimated \$399.4 million in export sales, and supported approximately 1,900 additional jobs. These efforts provide students with hands-on experience while helping Michigan companies pursue growth in international markets.

- **Child Development Laboratory.** MSU's Child Development Laboratory (CDL) is expanding, bringing top-tier early childhood education programs to a state-of-the-art facility in the City of Lansing. The State of Michigan appropriated \$2 million to support the project, will open its doors in fall 2026. The College of Social Science's Department of Human Development and Family Studies currently operates two other Child Development Labs, in East Lansing and Haslett, and are committed to providing outstanding service to children and their families, critical training for students in child development, and exemplary research settings for faculty and students.
- **Rx Kids.** Since launching in 2024, the Rx Kids public-private partnership jointly led by MSU's College of Human Medicine has expanded to over 30 urban and rural communities across the state, helping over 5,000 families and delivering more than \$20 million in cash prescriptions. In October 2025, the State of Michigan committed a historic \$250 million to support the Rx Kids public-private partnership, enabling expansion over the next three years to even more communities and families across the state. This investment is expected to reach nearly 100,000 babies — about one-third of all births in Michigan. Every participating family receives \$1,500 during pregnancy, followed by \$500 a month during at least the first six months of a child's life. The program has demonstrated significant positive outcomes. For every Rx Kids \$1 spent in the community, an estimated \$1.60-\$3.00 circulates in the local economy, underscoring its dual role in enhancing public health and stimulating economic growth.
- **Advancing Health Equity in Flint.** In an effort to transform how health disparities are addressed nationwide, Michigan State University's College of Human Medicine and Flint received a \$700,000 grant in 2026 from the Robert Wood Johnson Foundation's Health Equity Research for Action (HERA) program to establish priorities and funding mechanisms for future health equity programs alongside local community leaders. By integrating community partnership into the department's core structure, local input guides public health efforts, leading to more effective and sustainable solutions for the community. By centering community voices and fostering collaboration among diverse stakeholders, the insights gained from this project will address the systemic barriers faced by underserved populations and enhance health outcomes.
- **Strengthening Michigan's Veterinary Workforce.** The MSU College of Veterinary Medicine has partnered with the Michigan Department of Agriculture and Rural Development (MDARD) in multiple ways to strengthen veterinary care services in the state. MDARD granted \$900,000 to MSU in 2026 to implement the Michigan Rural Veterinary Workforce Model, addressing barriers to recruiting and retaining veterinary professionals in rural communities. Additionally, MDARD and MSU have partnered to launch a Community Medicine Program aimed at increasing veterinary services in

underserved Michigan communities. Launched in Spring 2026, the program uses a mobile surgical unit, serving two missions: enabling veterinary students to gain hands-on experience performing routine surgeries, enhancing their education and expanding access to veterinary care, positively impacting local communities and patient outcomes.

- **Advancing Water Research and Community Solutions.** In 2026, the MSU Water Alliance led a collaborative effort to explore a "bubble barrier" to intercept plastic pollution in Lansing's Grand River. Working with Grand Valley State University (GVSU), state agencies, the city of Lansing, and other partners, MSU researchers are evaluating the technology's potential while engaging residents in the planning process. The initiative addresses a broader Great Lakes challenge: an estimated 22 million pounds of plastic enters the lakes annually, with Lake Michigan accounting for nearly half. Because the Grand River flows into Lake Michigan, intercepting plastic debris in Lansing could help reduce pollution, reaching this vital freshwater ecosystem. This initiative also creates opportunities for community engagement and freshwater stewardship, with the potential to inform similar efforts in Michigan and beyond.
- **Driving Agricultural Innovation and Resilience.** Through MSU AgBioResearch, MSU Extension, and partnerships with state agencies and agricultural industries, MSU translates research into practical solutions for Michigan growers. Project GREEN (Generating Research and Extension to meet Economic and Environmental Needs), a state-supported program established in 1997, supports emerging plant agriculture challenges and reported in 2024 to have generated more than \$15 in statewide economic activity per dollar invested. Complementing this work, the Agricultural Resiliency Program, a state-supported program established in 2024, addresses longer-term challenges related to extreme weather, water management, and soil health; in 2025, it doubled its research portfolio to eight projects. As a parallel, MSU's AgBioResearch discoveries support key Michigan commodities, including potatoes and dry beans. In 2026, MSU announced five new potato varieties developed to improve disease resistance, storage life, and processing reliability, supporting Michigan's national leadership in chip-potato production. MSU's century-long dry bean breeding program likewise supports approximately 1,100 Michigan growers producing more than 500 million pounds annually, making Michigan the nation's second-leading dry bean producer.

Through sustained partnerships with Michigan communities, MSU translates its educational and research expertise into practical solutions, expanded opportunities, and meaningful public service. By engaging students, faculty, and staff in addressing community priorities, the university strengthens local capacity, supports Michigan's economic and social well-being, and carries its land-grant mission forward across the state.

II. Instructional Programming

As one of 71 members of the prestigious Association of American Universities in the U.S. and Canada, a Carnegie Research 1 University (highest research activity) institution, and Michigan's land-grant university, Michigan State is dedicated to reflecting its tripartite mission

in its instructional offerings. MSU is uniquely positioned as a top-tier research intensive institution, and land-grant university offering an accessible education, to have a big impact on solving the world's toughest problems.

MSU continues to have an outstanding record of students earning prestigious national and international scholarships. MSU has produced 19 Rhodes Scholars, 61 Goldwater Scholars, 20 Marshall Scholars, 17 Truman Scholars, 18 Churchill Scholars, 14 Udall Scholars, 8 Presidential Fellows, 7 Hollings Scholars, 7 Gates Cambridge Scholars, 6 Beinecke Scholars, and 3 Gaither Fellows.

Michigan State University offers more than 400 academic programs, to meet the needs of Michigan citizens and students from across the country and around the world. MSU is ranked 30th among public universities and 69th overall in U.S. News and World Report's America's Best Colleges 2026. MSU has 32 undergraduate and graduate programs and concentrations ranked in the top 25 nationally by U.S. News & World Report, including four #1-ranked programs. Elementary and Secondary Education graduate programs have ranked 1st for 31 straight years. MSU graduate programs, educational administration and higher education administration, rank #2. MSU's undergraduate Supply Chain Management Program ranks #2 and the Broad College of Business is ranked 21st among public universities for undergraduate business programs according to the 2027 U.S. News & World Report. In its 2026 ranking for online graduate programs, U.S. News & World Report ranked seven of Michigan State University's participating online graduate programs in the top 25, all of which are in the top 10.

To ensure MSU remains a best value for students and other stakeholders, the university monitors its standing relative to relevant regional, national, and international peers. Areas of importance include academic quality, efficiency and value, affordability and access, and economic impact. To remain competitive, MSU must be an effective steward of its resources. All colleges and administrative units undergo annual strategic planning reviews to encourage alignment with university strategic priorities and ensure university-wide effectiveness and efficiency. With resources focused on mission-centric areas of the institution, MSU continues to preserve its academic rigor with a competitive student-faculty ratio (17:1) that is consistent with the Big Ten public universities' average.

Recent programming initiatives

- MSU has partnered with Apple to advance American manufacturing through the Apple Manufacturing Academy, opened in Detroit's First National Building in summer 2025. The first program of its kind in the United States, the academy provides free in-person and virtual training for small- and medium-sized manufacturers nationwide, focusing on artificial intelligence, smart manufacturing, and operational efficiency. MSU experts and Apple engineers will collaborate to train workers in vital skills like project management, manufacturing process optimization, and vocational and leadership skills. Building on the success of the Apple Developer Academy, this partnership reflects MSU's strong programming in engineering, packaging, logistics and supply chain, commitment to be a leader in AI research, and aligns with its mission of community outreach and desire to solve the world's biggest problems.

- To advance strategic priorities in STEM education, Michigan State University is expanding its academic offerings with a new undergraduate minor in Artificial Intelligence, enhanced introductory engineering coursework, and dedicated foundational AI classes. Supported in part by the AI Ready Spartans Initiative, the expanded curriculum includes core foundational courses and standalone course options. These programmatic enhancements will grow and evolve as the expectations for students change, preparing them for the job market. Given the rapid pace at which AI tools are changing, MSU will be ready to respond.
- MSU is transforming its general education curriculum to better prepare students for the evolving workforce, emphasizing vertical learning, experiential education, and undergraduate research. The initiative to modernize MSU's general education curriculum was launched in Fall 2025 with an information gathering, research and feedback phase, design phase in Spring 2026, and is being reviewed in Fall 2026. The transformed general education curriculum will provide a modern, innovative, inclusive, and global curriculum that prepares students for future success in careers and jobs that we cannot even imagine today.
- MSU's College of Arts and Letters introduced two new majors for Fall 2026. Both majors expand connections to the study of philosophy: Philosophy and the Sciences, a new major bridging scientific inquiry and philosophical thought, and Philosophy and Law, a new major connecting critical thinking with careers in law and beyond.
- The College of Engineering introduced a new Bachelor of Science program in Technology Engineering in Fall 2024. The program seamlessly integrates engineering and computer science curricula, offering an innovative educational experience, which will prepare students for modern engineering challenges in the multidisciplinary, interconnected world. The program responds to both industry and student demands, providing additional opportunities for students in the Engineering Sciences. Additionally, the program responds to the state of Michigan Economic Development goal to provide a more qualified workforce, in particular related to technology and engineering sectors. This degree program fosters a pipeline of engineering talent to support the manufacturing industries that Michigan is actively working to attract.
- The Michigan State University and Lansing Community College (LCC) partnership that improves access to a four-year degree, increases student success, and helps build a pipeline of talent to meet the needs of the Mid-Michigan economy was renewed in 2024. The partnership, called Envision Green, provides a seamless transition from LCC to MSU by embedding MSU advisors within LCC to guide students through their educational journey — a transition more than 5,500 LCC students have made over the last decade. With this partnership in place, prospective LCC students can consider MSU from the start of their higher education journey. The affordability of the LCC-to-MSU path means a four-year-degree is an option for more people in the region — crucial for building and retaining an educated workforce in Michigan.

Recent Programming and Facilities Updates

As we maintain and enhance the academic quality of our program offerings, we must also be vigilant about the quality, flexibility, functional alignment, utilization, and expansion needed for our academic and instructional space. MSU must provide state-of-the-art facilities and infrastructure that will help attract and retain top-quality students, faculty, and researchers. This is vital to remain competitive in key fields, both nationally and internationally, and to maintain our membership in the prestigious American Association of Universities. Through entrepreneurship and a systems approach, MSU research moves rapidly from classrooms and laboratories to create new products, new industries, and new jobs, providing the state with a talent pipeline, expertise and research outcomes, and industry partnerships for future Michigan. Examples of facilities that enable MSU to be competitive for talent, external grants and awards, and partnerships include:

- The College of Engineering's new Technology Engineering program will soon have a new home in Wilson Hall. In February 2026, MSU's Board of Trustees authorized renovation of the former dining hall space in Wilson Hall to create modern instructional laboratory space for the new undergraduate degree program. The space will feature hands-on learning environments, including state-of-the-art laboratories designed to support experiential instruction. The renovation is expected to be completed in fall 2027.
- In April 2026 the MSU Board of Trustees authorized construction of the new Spartan Success Center to be located on the first floor of the Hannah Administration Building, which will serve as a central hub dedicated to supporting the academic journeys and success of all MSU students, including first-generation students. First-generation college students are the first in their families to complete a university degree. The space will provide a welcoming environment where essential support services are accessible to all students.
- MSU is expanding its Anaerobic Digester and constructing a Renewable Natural Gas (RNG) Facility, a project authorized by MSU's Board of Trustees in June 2026. The RNG facility will upgrade biogas generated in the anaerobic digester to pipeline-quality RNG that will be available for sale and distribution. Anaerobic digestion is a proven technology for reducing emissions while producing renewable energy, though adoption by Michigan dairy farms has been limited by technical and economic barriers. MSU has been a national leader in this area, as the first university to build and operate an anaerobic digester. After completion of the project and initiation of operations, it will achieve a minimum reduction of 20,000 metric tons CO₂e in greenhouse gas emissions on campus annually with the potential to reach a reduction of 40,000 metric tons CO₂e per year through the advancement and implementation of new MSU technologies.
- In September of 2024 MSU's Board of Trustees authorized construction for a new Plant and Environmental Sciences Building. The 200,000 square foot facility will provide critical laboratory space for approximately 40 principal investigators and their teams. MSU is a leader in food security and climate adaptation research and is ranked among the world's leading universities in plant sciences. Ten of MSU's thirteen members of the prestigious National Academy of Sciences work in plant and environmental sciences.

The new facility is an investment in MSU's current and future excellence in plant and environmental science. The project is expected to be completed in 2027.

- MSU recently completed two facilities critical to agricultural research and food production, a new Dairy Cattle Teaching and Research facility and renovations and additions to the Plant Science Greenhouse facilities. The State of Michigan provided \$53 million for partial funding for each project. The facilities are vital to supporting Michigan's agricultural industry by developing the next generation of dairy industry and plant science leaders and creating cutting edge knowledge. The dairy cattle herd moved into the new facility in July 2025 and the remainder of the Dairy Cattle Teaching and Research Facility was completed in 2026, bringing MSU in line with industry standards that allow researchers to utilize the latest technology and gain industry input to guide the focus of research efforts to address Michigan producer's most urgent needs. The Plant Science Greenhouse facilities were completed in spring 2026.
- A new Student Recreation and Wellness Center (SRWC) is nearing completion. The center opened its doors for summer 2026 and the natatorium is anticipated to be completed in December 2026. The center provides an opportunity for students and staff to engage in recreation, proactive wellness, and well-being activities. The center comprises fitness spaces, various multipurpose rooms, gymnasiums, an indoor running track, and multi-activity courts. As part of the SRWC project, the IM West Facility constructed in 1958 will be demolished in 2027.
- An addition to the Facility for Rare Isotope Beams addition that triples the current capacity of the FRIB Chip Testing Facility by providing two additional user vaults was completed in spring 2026. FRIB is one of three chip testing facilities in the nation. The facility provides educational opportunities for students in chip design and testing in addition to providing user-team testing capacity.
- In June 2024 construction began on a new research facility in Detroit supporting the Henry Ford + Michigan State University Health Sciences 30-year partnership. The 330,000 square foot facility is anticipated to be completed in spring 2027. The partnership between two of the state's leading education, research, and health care institutions, are poised to make Michigan a national leader in providing access to exceptional health care for all residents; scientific discovery; and education for providers, patients, and families. In a landmark partnership that will last for at least 30 years, both institutions are committed to aligning efforts across key departments and programs to achieve critical health care and educational goals, while addressing social issues that impact health outcomes for patients in Michigan and beyond.
- The MSU Museum opened in spring 2026 after a \$28 million investment in infrastructure to provide temperature and humidity environmental controls in alignment with standards for collections stewardship, storage, and exhibition. The project ensures the MSU Museum will continue to be a catalyst for teaching and learning and research at the intersection of the arts, sciences, and humanities.

Impactful Research in MSU Facilities – Illustrative

MSU's research is also in the upper tiers of U.S. universities. According to the National Academy of Inventors (NAI), MSU ranks in the top 100 U.S. universities granted patents last year. MSU has been ranked in the top 100 universities every year since 2013, the first year the NAI began publishing the annual report. MSU's faculty bring in significant new grants for far-reaching projects. MSU reported \$1 billion in research awards for FY2025-26. Most grants have substantial implications for laboratory space, equipment, and facilities. Examples include:

- In 2008, MSU's National Superconducting Cyclotron Laboratory (NSCL) was awarded the U.S. Department of Energy Office of Science (DOE-SC) project in nuclear research titled: Facility for Rare Isotope Beams (FRIB). Officially opening its doors for discovery in 2022, FRIB is a user facility for DOE-SC, operated by MSU with financial support from and furthering the mission of the DOE-SC Office of Nuclear Physics. The designation, given in 2020, demonstrates substantial commitment by the sponsoring program.

FRIB operates the world's most powerful rare isotope accelerator and serves as a world-class research and training center. The centerpiece of the user facility, a superconducting linear accelerator, will dramatically increase the reach of rare isotope research in the United States. The accelerator produces isotopes that normally exist only in the most extreme environments in the universe and will expand the usefulness of isotopes in a broad range of applications, from modeling stars to understanding the workings of nanoscale electronic devices.

FRIB cost \$730 million to design and build. In FY2014, Michigan made a commitment to bond and service the community cost share of \$94.5 million.

Since 2020, the DOE Isotope Program has provided \$13.2 million for FRIB's isotope harvesting project, covering base operations and core research. The project was completed in December 2024.

In 2022, FRIB opened the FRIB Single Event Effects (FSEE) Facility, which uses energetic and penetrating heavy ion beams to measure the response of electronic components to such ions.

In 2023, the DOE-SC awarded a cooperative agreement to establish and operate the High Rigidity Spectrometer (HRS) at FRIB, including \$115 million. This funding was in addition to the \$529 million DOE-SC awarded FRIB to support operations after the FRIB Project was completed, and following the \$199 million DOE-SC awarded for early operations. HRS consists of two segments: the High Transmission Beam Line (HRS-HTBL) and the Spectrometer Section (HRS-SPS). The DOE-SC granted Critical Decision 2/3 approval in 2025 to FRIB for the start of execution of the HRS-HTBL, furthering its investment in FRIB science with this \$49.7 million instrument.

Also in 2023, the federal government awarded \$14 million to MSU to establish the K500 Chip Testing Facility at FRIB, which supports the refurbishment of the world's first

superconducting cyclotron — built at MSU in the 1980s — into a heavy-ion chip testing facility. In spring 2026, the construction of the high-bay addition to the K500 Chip Testing Facility was completed, providing additional national capability for chip testing and offering 6,000 hours per year.

FRIB is also a major workforce development driver for Michigan and the nation, training highly skilled scientists and engineers in fields critical to U.S. economic competitiveness and national security. MSU's nationally top-ranked nuclear physics graduate program awards about 15% of the nation's nuclear physics doctorates, with students completing their degrees faster than the national average. FRIB provides rare, hands-on training in accelerator science, cryogenic engineering and radiochemistry — areas in short supply nationwide. Since 2015, FRIB-related programs have graduated 130 doctoral students, 76% domestic, strengthening the skilled workforce that supports advanced manufacturing, energy, defense and technology industries. Since 2011, FRIB has spent or obligated more than \$2 billion in procurements and labor, with \$1.7 billion or 79% of that investment in Michigan and 94% within the United States, supporting domestic jobs and technical workforce development.

- MSU AgBioResearch encompasses the work of more than 300 scientists in seven colleges with 3-year average annual grant expenditures of more than \$82 million. These researchers, in both on-campus laboratories and at 19 outlying research centers across the state, investigate topics that range from agricultural production, alternative energy and biofuel production, food safety, and environmental stewardship to health and nutrition, community development, and the quality of life of Michigan families.
- MSU and the University of Wisconsin-Madison continue to partner in the Great Lakes Bioenergy Research Center (GLBRC). The GLBRC was established in 2007 and is funded by the Department of Energy to develop sustainable alternatives to transportation fuels and products currently derived from petroleum. Since its inception, MSU has produced 108 patent applications, 15 license and option agreements and one start-up company for the GLBRC. In 2023, the U.S. Department of Energy awarded the GLBRC another five years of funding, bringing the center's lifetime awards to more than \$410 million and allowing scientists to continue foundational research to enable the breakthroughs needed for the cost-effective conversion of nonfood plants into low-carbon replacements for jet fuel, diesel and other fossil fuels.
- In 2026 MSU researchers received a \$30 million NSF grant to establish Transformative Explorations in Multi-Physics and Engineering of Scientific Turbulence or TEMPEST, a new Science and Technology Center, or STC, bringing together physicists, mathematicians, engineers and AI researchers to focus on one of science's most difficult problems: understanding and controlling turbulence. NSF Science and Technology Centers represent some of the nation's boldest investments in transformative research, which bring together leading experts across disciplines and institutions to confront the most complex scientific challenges of our time. Researchers in the College of Engineering will focus on applications for energy, transportation, aerospace and advanced manufacturing, while College of Natural Science researchers will investigate

new theories and mathematical frameworks to explain how turbulence emerges, evolves and interacts across different scales. The center will have a significant impact beyond MSU, strengthening Michigan's economy through federal research investment, workforce development and innovation. The center will be located in the Leinweber Center for Engineering and Digital Innovation when the facility is completed.

- The NIH awarded \$4.6 million in 2026 to MSU researchers to launch a novel project to transform how medications are developed and prescribed for women. Clinical trials often fail to account for the unique ways female hormones change throughout life — such as during menstrual cycles, pregnancy, birth control use, menopause and hormone replacement therapy. This oversight can lead to treatments that are less effective or cause more severe side effects in women than in men. To bridge this gap, 13 researchers across multiple universities are collaborating to build advanced computer models that will predict how a woman's natural hormonal changes affect how medicines move through and act within the body. Their findings are expected to result in stronger research studies, advances in precision medicine and better real-world outcomes for women.
- A researcher in MSU's School of Packaging received a \$540,000 grant in 2026 from the NSF focused on the development of innovative thermoplastic packaging that is cost-efficient, high-performing, biodegradable and microplastic-free. The inability to recycle many of the plastics currently used is perhaps the largest challenge facing the packaging industry. The goal is to develop materials that break down in composting environments without leaving behind persistent plastic particles.
- The MSU-Department of Energy Plant Research Laboratory (PRL) was awarded a \$13.6 million grant in 2026 as part of the U.S. Department of Energy's Basic Energy Sciences program's ongoing support until 2029. The MSU-DOE Plant Research Laboratory nine labs, which comprise over 100 personnel, are focused on photosynthesis: the molecular process that powers organisms like plants, algae and cyanobacteria, and which produces the vast amount of oxygen and biological energy necessary to support life on Earth. As one of the world's premier centers for photosynthesis research, the PRL has spearheaded efforts to unlock the molecular complexities of photosynthesis and how plants adapt to changes in their environment.
- The National Institute of Health awarded a \$3.3 million federal grant to a partnership between MSU and the University of Michigan to improve the prevention and treatment of type 2 diabetes. The award will support the Michigan Center for Diabetes Translational Research (MCDTR), which is one of eight centers nationally, with the goal to quickly take discoveries from the lab to the clinic to help patients.
- MSU received a \$20 million NSF grant from the U.S. National Science Foundation in 2026 to support the establishment of a shared user facility, Integrated Diamond and Carbon Research in Space Applications, or IDiCaRS. The establishment of a shared-use research facility will bring together advanced diamond and carbon materials, device fabrication and high-energy radiation testing to accelerate development of electronics

designed for extreme environments. The project could help enable more robust spacecraft with advanced capabilities while strengthening Michigan's position in semiconductors and advanced manufacturing. IDiCaRS will create hands-on education and training opportunities for students, including access to advanced research facilities and specialized equipment used in semiconductor manufacturing and radiation testing.

- The Center for Imaging and Image Guided Therapies (CIIGT) is located in Clinical Center Building D following the recent completion of renovations. CIIGT is one of only a few such medical diagnostic facilities in the world, a 9-ton Siemens Biograph One scanner, one of only a handful in the United States, was installed. It combines magnetic resonance imaging, or MRI, with positron emission tomography, known as PET, into one simplified, integrated process. Researchers from across campus will use the device to study brain and cardiovascular function in general, but also diseases ranging from Alzheimer's and Parkinson's to cancer. Because MSU is home to Michigan's only veterinary medicine college, the facility offers a unique opportunity to make connections between small animal and large animal research that could inform the development of new healthcare pathways.

III. Staffing and Enrollment

MSU's high-quality offerings continue to attract students from across Michigan, the nation, and the world, with Fall 2026 enrollment representing all 83 Michigan counties, all 50 states, and 127 countries. Key indicators of student demand and enrollment trends include:

- MSU received 62,539 first-time undergraduate applications this year and enrolled over 9,600. MSU's total enrollment for Fall 2026 is 50,941.
- MSU welcomed 10,984 new undergraduate students (first-time and transfers). Of the 9,657 first-time students, there are 2,874 students of color and 5,147 female. Total undergraduate enrollment for Fall 2026 is 40,871.
- Total graduate enrollment, including graduate professional students, is 10,070, of which 1,608 are new graduate master's and doctoral degree-seeking students, and 758 are new graduate-professional degree-seeking students.
- Michigan residents represent 73% of enrollments and 79% of the university's undergraduates. MSU students come from all 83 counties in the state.

Fall 2026 enrollment at Michigan State University represents careful and deliberate enrollment management to maintain academic quality and optimal classroom and laboratory environments for all students. A summary of enrollments for Fall 2026 by college and level, as well as ten-year enrollment history can be found in Appendix D. Based on Michigan demographic data, enrollment management practices at the University, and current faculty/staff and physical infrastructure resources, enrollment patterns over the next five years are projected to remain stable overall with high demand for an MSU education.

While the university currently offers bachelor's, or bachelor's completion programs, and master's programs off campus and intends to increase the number and diversity of learners we serve through an online learning strategy that provides wider access through targeted programs, it is important to note that the vast majority of students utilize the facilities of MSU's East Lansing campus to complete their degree programs. The university will continue to expand opportunities to offer instruction that complement traditional academic programs, but the demand for on-campus experience remains high.

The preliminary Fall 2026 full-time equivalent (FTE) count of faculty and academic staff is approximately 5,348. Of that total, a significant portion is engaged in instruction, with the rest distributed across research, public service, academic and student support services, and other institutional functions.

As of Fall 2026, the current average class size for lower division undergraduate classes is 49 students. The average class size is 37 for upper division undergraduate classes and 13 for graduate classes. The most recent calculation of the student/faculty ratio is 17:1, which is consistent with the Big 10 public average.

IV. Facility Assessment

MSU recognizes that its physical infrastructure requires ongoing evaluation, maintenance, and renovation in a manner that is consistent with the scope, scale, and high quality of its personnel and programs. As one of MSU's most important assets, the built environment supports the institution's academic mission of teaching and learning, research and innovation, and outreach and engagement. University facilities create a sense of place for the campus and surrounding communities, and support the success of students, faculty, and staff.

The college and program units systematically provide annual programmatic facility reviews and space needs, including alteration and improvement requests, and major capital planning needs through the annual budget and planning process. This process identifies high-priority programmatic needs and informs the development of the annual 5-Year Capital Plan.

Given the dynamic nature of higher education, the planning horizon for academic and academic-support programs is typically five years. Examples of identified projects include comprehensive renovations of a research lab to support current research foci and sophisticated research equipment and modifications to office and dry research space for improved efficiency and program functionality, and to align with modern teaching and learning and work modalities. The planning process informs broader capital needs by identifying programmatic areas that would benefit from new construction or major renovations.

Based on the most recent planning cycles, approximately \$20 million is needed annually to address high priority, selected programmatic improvements. It is anticipated that this magnitude of funding is needed on an annual basis to address these selected programmatic improvements of a smaller scale given the limited resources, age of the physical plant, strategic plan goals for growth in research over the next 5 years, and changes in curriculum and evolution of teaching and learning methods and student learning experiences. In addition, the

expansion of work modalities, particularly those associated with office and office support spaces, presents challenges in aligning space resources with evolving demand and functional needs.

This planning enables the university to coordinate projects and assemble the work scope to reduce overall project costs by coupling programmatic alteration needs with infrastructure improvements and the removal of maintenance items. As a result, limited building improvement funds are expended more effectively. *Vision 2050: An Integrated Facilities and Land Use Plan* includes several goals that will impact space and facility needs, including work modalities, teaching, and learning modalities; increase in research expenditures; multi- and trans-disciplinary research; and student support services.

Academic Facilities

Our continued success in delivering MSU's value proposition of providing high-quality programs to a talented and diverse student population depends on providing high-quality, collaborative, flexible, technology-enabled, and expanded academic and instructional spaces. These teaching and learning environments need to support emerging pedagogies, including those that support curriculum revisions, student-centered, collaborative, and self-guided learning. The learning environments, coupled with the changing modalities and curriculums, provide opportunities for research and leadership in instructional methods while fostering innovation through a technology-rich environment.

Approaches to teaching and learning have become more interactive across all disciplines, and the use of instructional technology has significantly enhanced what faculty and students accomplish in classrooms, teaching labs, and informal learning environments. All areas of research, instruction, and outreach incorporate technology and the underlying infrastructure that makes it possible.

Many of the university classrooms have received updates to support active learning principles and emerging technologies that facilitate the exchange of ideas and collaborative interactions. However, given the scope and scale of MSU, annual and on-going investment is necessary to provide quality instructional environments that keep pace with progress in technology and pedagogy, including student-centered, collaborative, and self-guided learning.

A comprehensive classroom renovation can range in cost from \$250,000 for a small classroom to over \$1,000,000 for a lecture hall. An estimated \$6 million annually is needed to support multi-year strategic planning for the over 320 university classrooms, including the potential to fund broad strategic instructional initiatives over time. Coupled with the necessary technological needs for the university's teaching and learning spaces, the total need is \$12 million annually to keep pace with changing pedagogies and provide high-quality instructional spaces on par with the educational experiences MSU is known for. While the university continues to make significant improvements, further investment is necessary to address aging spaces in order to keep pace with the changes in learning methods and modality; to continue to add value; and remain competitive in the recruitment and retention of high-quality students and faculty and increase participation at both the undergraduate and graduate levels.

- The University maintains over 320 centrally scheduled classrooms, lecture halls, and over 900 departmentally assigned instructional spaces. These spaces account for approximately 1.2 million square feet of space.
- For fall semester 2025, utilization of these instructional spaces by scheduled instructional periods ranges as high as 84% of the available hours, and averages 66% for centrally scheduled classrooms, excluding events. The seat utilization ranges as high as 63% of the available capacity and averages 57% across all rooms. In a typical academic year, one-time scheduled events such as help sessions, department, and student organization meetings increase utilization by 3%.
- Departmentally scheduled class laboratory spaces that are scheduled regularly for courses average 35% across all rooms and disciplines and range as high as 90% of the available hours. This utilization does not include prep or clean-up time, open lab time for tutoring, or student research use. The seat utilization ranges as high as 80% of the available capacity and averages 55% across all rooms and disciplines.
- 40% of the instructional space is in fair condition, 10% in poor condition, with the remaining 50% in good to excellent condition. Rooms requiring upgrades may need either comprehensive or selected renovations. These may include replacement of furniture, ceiling, and lighting; painting; upgrade of power and data; and replacement of lab benches and fume hoods. Rooms requiring upgrades are identified through a multi-year improvement plan that is informed by on-site reviews of each room, input from users, and analysis of room utilization, as well as the academic program planning process.

Quality support services, such as libraries, technology integration, specialized labs, field stations, clinics, informal learning areas, and state-of-the-art equipment also need to be sustained at a commensurate level with support of nationally competitive research and scholarship efforts that are consistent with instructional goals. The convergence of these factors calls for increased investment in the facilities and equipment that support these developments. It also calls for the creation of new modern learning environments across disciplines aligned with pedagogy and enrollment demand.

Further, MSU's steady enrollment in excess of 10,000 new undergraduate students annually creates additional demand for these physical resources. The STEM Teaching and Learning Facility that opened in 2021 began, in a more significant way, to address this need. The Leinweber Center for Engineering and Digital Innovation, awarded \$30 million from the state of Michigan school aid fund in the SFY2024 Higher Education budget and an additional \$30 million from the SFY2026 Capital Outlay appropriation, continues this strategic investment. Continued investment in creating and maintaining modern teaching and learning facilities is critical to providing the physical resources necessary to deliver the range of meaningful experiences for our students leading to career readiness.

Campus, Facilities, and Infrastructure

Michigan State University stewards an extensive physical asset portfolio of buildings; utilities; technology and security systems; campus grounds; transportation infrastructure; and facilities across the state that support its education, research, and outreach missions. Through ongoing maintenance and targeted renewal, MSU has extended the useful life of many building and utility systems and preserved the value of these assets well beyond standard industry lifecycle expectations.⁴

Facility assessments provide MSU with a comprehensive understanding of asset conditions and future renewal requirements. These assessments demonstrate both the value of sustained stewardship and the need for continued reinvestment as major systems reach the end of their serviceable lives. Timely capital renewal protects prior State and university investments, maintains reliable operations, reduces the risk and cost of unplanned failures, and ensures facilities can continue to support evolving university needs.⁵

Building codes, technology, and academic and research programs continue to evolve, increasing demands on electrical capacity, ventilation, climate control, safety systems, and other infrastructure. Strategic reinvestment allows MSU to respond to these changing requirements while improving functionality, efficiency, safety, sustainability, and long-term facility performance.

The configuration of older building spaces limits the efficient use of the areas available to programs and can hinder collaboration, interactions, and interdisciplinary work, which is increasingly important in today's learning, research, and work environments. Renovations and new construction are necessary to provide capacity; improve quality and utilization; address functional obsolescence and align infrastructure and programmatic needs for both instruction and research. This is especially true when current facilities are either too costly to renovate compared to the benefits realized and/or inadequate in the amount of space, and functional alignment provided.

Buildings and Capital Renewal

Michigan State University has approximately 25.5 million gross square feet of building space across 567 structures, representing an estimated \$8 billion in replacement value. General-fund facilities comprise approximately 14.8 million square feet, while Residential and Hospitality Services and other self-supporting facilities comprise approximately 10.8 million square feet. This portfolio represents generations of investment by the State of Michigan, the university, donors, and other partners. Preserving its value through disciplined maintenance and strategic capital renewal is a vital component of MSU's facilities stewardship strategy.

MSU completed facility condition assessments for East Lansing campus facilities to identify recurring lifecycle renewal needs, non-recurring needs, anticipated action years, and estimated costs. Assessments consider the age of major building components, maintenance history, and

⁴ See Appendix C: Map of Campus Buildings by Age

⁵ See Appendix E: Building Condition Assessment

observed condition. Facility and utility infrastructure assessments are updated on an ongoing basis using input from university maintenance and custodial staff, facility users, and external consultants. Colleges and program units also identify programmatic facility needs through the university's planning and budgeting processes.

Capital renewal needs are commonly forecasted using the industry-expected useful life of major building components. MSU refines these benchmarks using actual asset condition, maintenance history, and observed performance. When an asset can continue to operate safely and reliably, its projected renewal date may be extended rather than assuming replacement based solely on age. This condition-based approach helps MSU maximize the value and useful life of existing assets and direct capital resources to the areas of greatest need.

MSU manages and forecasts major repair and replacement needs through its capital renewal program. The program provides a disciplined, data-informed framework for prioritizing reinvestment based on asset condition and failure risk; operational, safety, and program impacts; financial consequences of deferral; and opportunities to advance institutional, sustainability, and campus environment objectives. This approach helps ensure that available capital is directed toward projects that reduce risk, extend asset life, and deliver the greatest long-term value.

MSU's broader approach to capital renewal emphasizes:

- Maximizing existing assets through preventive maintenance, repair, and condition-based life extension.
- Using data to guide investment through facility condition assessments, asset performance information, maintenance history, and lifecycle planning.
- Prioritizing risk and mission continuity so available resources address the most consequential infrastructure needs.
- Coordinating renewal with modernization to improve energy performance, safety, accessibility, technology, and program functionality.
- Planning for long-term affordability by considering lifecycle cost and directing investment toward facilities that continue to provide institutional and public value.
- Protecting public investment by maintaining and renewing the university's substantial physical asset portfolio for future generations.

In response to MSU's facilities assessments, reviews of programmatic needs, functional alignment and adjacencies, coupled with accelerating changes in work modalities and organizational changes, MSU implemented Workplace Strategic Guidelines in 2025. The guidelines are based on a detailed study of how campus buildings are used. The guidelines reflect modern work modalities and support space planning and allocation for office and office

support functions. The guidelines ensure that MSU's physical environment fits with current and future workplace requirements and the university's strategic goals of sustainability and resource stewardship.

Campus Land and Landscape

- The campus grounds, including the natural and built landscape, are a principal aspect of the campus infrastructure. The main East Lansing campus is approximately 5,200 acres, or eight and a half square miles. The developed campus approximates 2,000 acres, and the experimental research farm area approximates 2,700 acres with the remaining supporting auxiliary activities. Off-campus MSU land covers approximately 21,000 acres for a total of 26,200 acres across the state.

Despite this rich land area, the planning process recognizes that land resources are finite and should be conserved for future generations. As a result, the *Vision 2050: An Integrated Facilities and Land Use Plan* for Michigan State University adopted compact campus development. While allowing for some horizontal expansion across the campus, the plan protects the capacity and contiguity of the farm areas, uses a strategy of carefully conceived "infill" in some portions of campus, and careful replacement of existing facilities that have reached the end of their useful lifespan to minimize net new development in other areas of campus.

- The developed campus, and the North Campus "Circle Area" in particular, is recognized as one of the nation's most beautiful campuses. The open space quality of this area, the Red Cedar River corridor, and the Sanford and Baker woodlots are highly regarded and reinforce the social and intellectual vitality of the campus. The campus arboretum grows nearly 1,000 different taxa, represented by more than 20,100 individual trees, and innumerable shrubs and vines which serve as a collection for research, teaching, beautification, and health and wellness.

The developed landscape's estimated replacement value exceeds \$488 million.

Transportation Infrastructure

- MSU's transportation system encompasses 58 lane miles of university-owned roadways, with a replacement value of \$57.6 million.
- The condition of the roads is estimated to be 1.4% poor, 42% fair, 35.2% good and 21.4% excellent. MSU prioritizes improving safety for vehicles, pedestrians, bicyclists, and other motorized transport as streets are rebuilt.
- The university owns seven bridges on campus; four are for pedestrians only and three are for both vehicles and pedestrians. The university is responsible for cosmetic maintenance of two train bridges. The bridges have a replacement value of \$87.4 million. Three bridges are in excellent condition, one is in good condition, one is in fair condition,

and two are in poor condition. Repairs are underway and future replacement is being planned for the two pedestrian bridges currently rated in poor condition. Reconstruction of the Farm Lane bridge was completed in summer 2024, restoring the bridge to full capacity and adding a new pedestrian bridge to improve safety while addressing critical utility infrastructure needs. On a typical class day, the bridge carries more than 12,000 vehicles and 7,000 pedestrians. The project demonstrates how coordinated infrastructure renewal can improve safety and mobility, protect critical utility systems, and support daily campus operations.

- The parking system of approximately 29,400 spaces for students, faculty, staff, and visitors is self-supporting and has a replacement value of approximately \$366 million: \$191 million for seven parking structures and \$175 million for surface parking. One parking structure is in poor-to-fair condition, three are in good condition, and four are in excellent condition. The condition of the approximately 24,500 surface parking spaces breaks down to 16.5% in poor condition, 32.8% fair condition, 17.1% good condition and 33.6% in excellent condition.
- There are 116 miles of walkways valued at \$60.6 5million.
- The All-University Traffic and Transportation Committee addresses the issues related to mobility, parking and motorized and non-motorized transportation on campus. MSU continues its long-standing partnership with the Capital Area Transport Authority to provide service on-campus and surrounding area routes.

Technology and Communications Infrastructure

- Main campus inter-building communications are comprised of an underground fiber-optic distribution system that supports network data, VoIP telephone, contact center, cable television, cellular, two-way radio dispatch, and other specialized services. The fiber-optic system interconnects 241 unique structures on campus. Wireless equipment provides connections for additional structures in the south-campus farm district, well water pump facilities and other critical infrastructure with planning underway to replace this legacy service with direct fiber-optic connections. After the upgrade, MSU will have 297 unique structures with high-capacity underground fiber-optic connections. In addition to the fiber-optic distribution system, each building has internal cabling infrastructure and equipment with approximately 83% in need of significant infrastructure and equipment upgrades to keep up with operational demands. Wi-Fi service is provided by over 16,468 wireless access points. Approximately 59% of main campus buildings have full Wi-Fi coverage, 21% have partial Wi-Fi coverage and 20% have little or no Wi-Fi coverage. All residence halls have Wi-Fi service in student rooms, dining halls and related gathering places and were refreshed to newer wireless technology during the summer of 2026.

MSU IT is in the beginning phase of a multi-year campus-wide strategic initiative to modernize the network infrastructure, which is inclusive of both wired and wireless

networks. The initiative will focus on current network needs as well as forward planning to meet increasing network demand.

The estimated replacement value of campus data network infrastructure is over \$103.2 million and annual maintenance costs exceed \$14.0 million.

Off-campus sites in the Lansing metropolitan area are connected to the MSU data network via a 45-mile fiber-optic ring operated by Zayo Enterprise Networks. Facilities across the state—those outside of Lansing—are connected via Merit Network, Inc., or other local service providers.

External data network connectivity from the main East Lansing campus is provided via redundant links to the commodity Internet and to the research focused Internet2 network via Merit Network, Inc.

- Cellular infrastructure from all four national cellular carriers is installed on main campus building rooftops and other structures. This carrier-owned equipment provides enhanced service coverage and capacity for the public, university employees, and large campus events.

Utility Infrastructure

The utility generation and distribution systems are major components of the campus infrastructure. The generation system includes:

- The T. B. Simon Power Plant, a natural gas-fired Combined Heat & Power (CHP) power plant which generates up to 98.5 MW of electricity and 960,000 pounds of steam per hour. Generation is currently limited by distribution capacity rather than generation capacity. The power plant consists of Units 1 & 2 (1965), Unit 3 (1975), Unit 4 (1993), and Units 5/6 (2006). The condition and replacement value of this facility is being assessed as part of the Utility Master Plan effort currently underway.
- A Reciprocating Internal Combustion Engines (RICE) Plant (2022) consists of three (3) x 9.4 MW natural gas engines capable of generating up to 27.9 MW of electricity to meet campus peak power demands, allowing the CHP plant to operate more efficiently.
- A natural gas-fired low pressure steam boiler, completed in 2023, capable of supplying up to 200,000 pounds per hour of steam directly to campus to meet peak heating and cooling demand.
- A connection to the local utility electrical grid through the 100 MW Spartan Substation.
- A 7-million gallon per day drinking water treatment plant and 2-million-gallon water storage tower, both completed in 2020. The system treats water produced from 18 water wells to provide drinking water to north campus and feedwater to the power plant.

The utility distribution system includes 73 miles of water lines, 27.5 miles of steam lines in tunnels, 3.5 miles of direct buried steam lines, 168 miles electrical conduit and cable, 113 miles of communication cable and fiber, 160 miles of storm and sanitary sewers; and nearly 10 miles of chilled-water distribution. Additional information on utility system conditions, renewal priorities, planned investments, and risk mitigation strategies is provided in Appendix F.

Michigan State University's Strategic Commitment to Sustainability

In August 2025, Michigan State University unveiled its refreshed strategic plan, *MSU 2030: Excellence for Global Impact*. Among its six strategic priorities is Stewardship for a Sustainable Future, which builds upon and supersedes the 2012 Energy Transition Plan. This priority integrates sustainability with the university's broader stewardship of physical and financial resources, reinforcing MSU's commitment to move toward carbon neutrality by 2050 while balancing fiscal responsibility, environmental stewardship, and social equity.

Capital renewal and infrastructure modernization provide important opportunities to advance these goals. MSU has already made significant investments that improve infrastructure performance while reducing environmental impacts.

MSU has made significant progress in reducing greenhouse gas (GHG) emissions and advancing its sustainability goals:

In April 2016, the university completed the transition from solid fuels, including coal and biomass, to natural gas at the T.B. Simon Combined Heat and Power Plant. This transition contributed to an approximately 36% reduction in GHG emissions compared with 2010.

- Through a Power Purchase Agreement (PPA), MSU installed Solar Carports over five of its largest commuter parking lots, covering 5,000 parking spaces. Operational since December 2017, these solar arrays generate up to 10.5 MW peak power, supplying 7% to 11% of the university's annual electricity needs.
- Recent improvements at the T. B. Simon Power Plant have modernized campus energy infrastructure. The natural gas-fired steam boiler commissioned in 2023 provides an efficient and flexible means of meeting peak steam demand, while the RICE units can respond rapidly to changing electrical demand and support more efficient operation of the broader generation system.
- MSU continues to reduce resource consumption, GHG emissions, and materials sent to landfills. The MSU Surplus Store and Recycling Center (SSRC) supports waste reduction through recycling, reuse, and educational programs. Since university recycling services began in 1990, annual landfill totals have decreased by 55%. The SSRC's 2026 Strategic Plan establishes a goal of increasing the waste-diversion rate from 48% to 55% by the end of FY2029. Programs such as vermicomposting and Spartan Upcycle further integrate sustainability into campus operations and education. In fall 2023, SSRC received the NACUBO Excellence in Sustainability Award.

Statewide Facilities

- MSU property outside the main East Lansing campus includes approximately 21,000 acres, supporting research, teaching, and outreach statewide. These assets extend the impact of MSU's physical infrastructure across Michigan, advancing agricultural research, community engagement, economic development, environmental research, and education. University properties beyond the East Lansing campus cover approximately 21,000 acres and contribute to the built environment with 19 AgBioResearch research centers across the state (the Kellogg Biological Station and Saginaw Valley Research and Extension Center are examples). Other agricultural field research locations include the South Campus Farms teaching and research centers. Sites supporting other programs include the, Tollgate Farm and Education Center in Novi, the Management Education Center in Troy, WaWaSum in Grayling, Hidden Lake Gardens in Tipton, and The Secchia Center and Grand Rapids Research Center in Grand Rapids, The College of Human Medicine in Flint, and the Detroit Innovation and Learning Center.
- Upgrades to existing research space to meet current technological, regulatory, and operational requirements of researchers and funding organizations are needed. Research maintenance items consist of both wet and dry lab upgrades and equipment replacement, and conference facilities upgrades to support extension and outreach activities. General maintenance and infrastructure improvements include exterior repair/replacement; technology and security upgrades; environmental enhancements for storm water and process water management; energy efficiencies; regulatory requirements; and mechanical upgrades that include electrical, plumbing, and heating, ventilation, and air conditioning (HVAC). Other facility maintenance and repairs include well and septic systems, roadways, and parking areas.
- More than 400 buildings support MSU's off-campus research, teaching, and extension activities across the state. The replacement value for off-campus facilities is calculated at more than \$1 billion. Continued stewardship and renewal of these assets protect the State's investment while ensuring MSU's facilities can continue serving Michigan communities and industries.

State Building Authority Projects

The following university facilities received funding through the State Building Authority and have State Building Authority leases:

Facility Description	Expected Lease End Date
Animal Health Diagnostic Lab	10/31/2040
Bio-Physical Sciences Building	3/31/2037

Chemistry Building Renovations/Cooling Towers	10/31/2043
Bioengineering Facility	7/31/2051
STEM Teaching and Learning Facility	6/30/2056

MSU has one on-going project that will be financed with State Building Authority resources. The engineering and digital innovation building, named the Leinweber Center for Engineering and Digital Innovation, was appropriated \$30 million from the school aid fund in the SFY2024 Higher Education budget and \$30 million is expected to come from the State Building Authority as described in the SFY2026 Capital Outlay appropriation. Completion of the Leinweber Center is critical to creating interdisciplinary teaching and learning and research opportunities not possible in current facilities and that address the needs of disciplines including STEM, engineering, and physical science identified in the 5-year plan.

V. Implementation Plan

Michigan State University's approach to capital planning employs a continuous process that integrates academic, support, human resources, fiscal, and facility infrastructure planning. Institutional participation in the planning process ensures that consideration is given to relevant issues and that decisions reflect the fundamental mission and direction of the university.

Capital needs are guided and informed by the *MSU 2030 Strategic Plan*, *Capital Planning Framework*, and *Vision 2050: An Integrated Facilities and Land Use Plan*, and planning activities that occur within major components of the institution at regular cycles throughout the year. These components include the annual academic, administrative, and auxiliary budget and planning process combined with capital renewal, technology, utility systems, energy, and sustainability planning, as well as planning for transportation (roads and sidewalks), parking, and open space. Within this context, budgetary and fiscal analyses at the local, state, and federal levels are considered.

Within each component of planning, several more detailed issues are reviewed and examined relative to their impact on facilities over the short- and long-term. One approach used for this more detailed planning is the Executive Strategic Planning Committee and the Campus Infrastructure Planning Work Group. These groups bring together a comprehensive cross section of university constituents, which evaluate projects on several dimensions to ensure thoroughness of planning, conformance with campus land use planning principles adopted by the MSU Board of Trustees, alignment with the strategic plan, and impact across the university.

As a matter of operating philosophy and practice, facility planning encompasses the following issues:

- Renovations, as well as maintenance of existing campus facilities, and new construction are focused on supporting programs that are central to the academic mission of the university.
- Planning is holistic and comprehensive. In addition to capital renewal of existing facilities, academic program needs are considered, including adjacencies, utilization, and work and learning modalities, and facility adaptation is planned accordingly. A premium is placed on reuse of existing facilities, conservation of open space, energy conservation, and health, safety, security, and regulatory requirements. Barrier-free modifications are given priority and needs related to technology are incorporated. Where appropriate, fixed building equipment, particularly for laboratories and instructional spaces, is included in the plans.
- New construction, additions, and renovations are planned to align a project's financial investment with the facility's life cycle and program needs, while allowing flexibility for future change. Least life cycle cost analysis ensures facilities can meet current program needs and adapt over time to evolving programs or technologies.
- The least life cycle cost analysis enables project development to focus on designs that reduce the ongoing maintenance cost of facilities. MSU's high-quality construction standards intentionally create plans and assemble materials that "design out" as much near and long-term maintenance as possible.

In summary, the anticipated expenses of a facility over its life cycle are carefully considered in relation to the initial investment in design and materials.

Through facility-planning activities, MSU recognizes that campus programmatic and facility capital renewal issues are significant and constantly evolving. As a result, needs exist simultaneously in three major areas:

1. Renovations and Additions
2. New Construction
3. Major Systems Maintenance and Utilities

Many more needs exist than can be addressed at any one time. However, within this context and informed by the planning processes described above, the "College of Veterinary Medicine – Large Animal Hospital" is the institution's Capital Outlay project request, as noted in Section I of the following table.⁶ Other projects included in Section I of the table reflect the institution's anticipated capital project needs for the 5-year planning framework. Projects listed in Section

⁶ See Appendix G for the State Fiscal Year 2028 Capital Outlay Project Request – "College of Veterinary Medicine – Large Animal Hospital."

It are currently in “active planning” or “in process,” with funding primarily from institutional resources.

Capital Planning and Major Maintenance SFY28-33

Planning Timeframe: One to Five Years

Section I: MSU Capital Outlay SFY28 5-Year Planning	
FY27 Est. (mil.)	
Capital Outlay Priority – New Construction	
COLLEGE OF VETERINARY MEDICINE - LARGE ANIMAL HOSPITAL	\$290.0M
MSU 5-Year Capital Planning (Alphabetical Order)	
Renovations and Additions	
AUDITORIUM BUILDING - RENOVATION OF THE MAIN AUDITORIUM TO SUPPORT TEACHING, LEARNING, OUTREACH	\$34.9M - \$61.6M
BIO-ENGINEERING FACILITY (IQ) - BUILD-OUT 3RD AND 4TH FLOOR - BIO DESIGN	TBD
BIOMEDICAL ANIMAL RESOURCES - PROVISION FOR LARGE ANIMAL - HOUSING AND SURGERY	\$16.4M - \$24.8M
BRESLIN CENTER ADDITION/RENOVATION	\$100.0M
BSL-3 RESEARCH EXPANSION - ADDITIONAL LABS	\$19.6M - \$23.5M
BSL-3 RESEARCH EXPANSION - MULTI-SPECIES FLEXIBLE - HOUSING/PROCEDURE SPACE (PH 2/2)	\$14.0M - \$15.6M
CLINICAL CENTER A-WING - RENOVATE FOR RESEARCH EXPANSION OR TEACHING AND LEARNING	\$178.9M - \$201.2M
CLINICAL CENTER B-WING - RENOVATE FOR TEACHING & LEARNING	\$22.0M - \$29.5M
COLLEGE OF MUSIC - FUTURE INSTRUMENTS LAB	\$1.0M - \$5.0M
COLLEGE OF SOCIAL SCIENCE - OFFICE AND TEACHING LAB RENOVATIONS IN BERKEY HALL	\$2.1M
CONSTRUCTION MANAGEMENT TEACHING LAB (REPLACEMENT SPACE DUE TO DEMO OF CENTRAL SERVICES)	\$5.0M - \$7.0M
CORE AQUATIC SPECIES RESEARCH FACILITY - RENOVATION AND/OR ADDITION RSCH SUPPORT AND EXPANSION	\$33.3M - \$40.4M
COLLEGE OF VETERINARY MEDICINE COMPREHENSIVE FACILITIES DEVELOPMENT	TBD
ENGINEERING - RENOVATIONS - RESEARCH AND LEARNING (NEW CONSTRUCTION RELATED BACKFILL)	\$13.3M - \$16.8M
GRAND RAPIDS RESEARCH CENTER (GRRC) 5TH FLOOR LAB FIT-OUT	\$20.0M
GREENHOUSES - PHASE 2	\$33.0M
HCI AMBULATORY SURGERY CENTER - RENOVATIONS AT 4700 HAGADORN RD	\$9.4M - \$10.4M
HCI HAGADORN RENOVATIONS FOR FUTURE CLINICAL CONSOLIDATION AND EXPANSION	\$2.5M - \$3.3M
HIGH ENERGY ION SINGLE EVENT EFFECTS TESTING FACILITY	\$432.6M
JENISON FIELD HOUSE - VOLLEYBALL PRACTICE GYM ADDITION	\$50.0M
KINESIOLOGY SPACE IMPROVEMENTS AND EXPANSION - RENOVATION AND/OR NEW CONSTRUCTION	\$32.4M - \$37.9M
KRESGE ART CENTER - COMPREHENSIVE RENOVATIONS - TEACHING AND LEARNING, RESEARCH	\$58.2M - \$62.7M
LAW LIBRARY RENOVATIONS	\$1.0M - \$5.0M

LEARNING SPACE IMPROVEMENTS - ANNUAL INVESTMENT FOR UPGRADES AND IMPROVEMENTS (\$6M ANNUAL REQUEST)	\$6.0M
MSU SAFE PLACE - NEW LOCATION	\$4.0M - \$4.5M
MSU/FRAUNHOFER COLLABORATION	\$2.0M - \$2.3M
MUSIC PRODUCTION STUDIO AND LEARNING CENTER	TBD
NEW COLLECTIONS FACILITY	\$30.0M - \$50.0M
OLD BOTANY - COMPREHENSIVE RENOVATION	\$15.0M - \$18.0M
OLD COLLEGE FIELD LED	\$3.0M - \$4.0M
OUTDOOR TRACK RELOCATION	\$5.2M - \$6.0M
PLANT BIOLOGY BUILDING - RENOVATE FOR PLANT AND ENVIRONMENTAL SCIENCE RESEARCH, TEACHING AND LEARNING	\$135.2M - \$156.0M
RENOVATION OF CHEMISTRY BUILDING SPECIALIZED HVAC SYSTEMS SERVING RESEARCH LABS (PRIORITY I OF IV)	\$1.4M
RENOVATION OF CHEMISTRY BUILDING SPECIALIZED HVAC SYSTEMS SERVING RESEARCH LABS (PRIORITY II-IV)	\$3.7M
SPARTAN INNOVATION DISTRICT (CRESCENT ROAD REDEVELOPMENT)	TBD
STARBUCKS RENOVATION AT 1855 PLACE (REQUIRED BY CONTRACT)	\$1.3M - \$1.5M
STRATEGIC WORKPLACE INVESTMENTS - HANNAH ADMINISTRATION AND OLDS HALL	\$8.3M - \$10.4M
UNIVERSITY CLASSROOM (ROOM 147) AND CAS CLASSROOM (ROOM 145) AND SHARED LOBBY	\$1.5M - \$3.0M
WHARTON - COMPREHENSIVE ACOUSTIC AND SOUND ENHANCEMENTS IN BOTH THEATERS	\$4.0M - \$6.0M

New Construction - New Building	
CHEMICAL WASTE FACILITY - NEW CONSTRUCTION	\$43.8M - \$44.2M
INCINERATOR BUILDING REPLACEMENT	TBD
INTERDISCIPLINARY RESEARCH BUILDING TO SUPPORT CHEMISTRY, FRIB, BIOSYSTEMS AG ENGINEERING, ENGINEERING - TEACHING AND RESEARCH - NEW CONSTRUCTION	TBD
Major Systems Maintenance & Utilities (Alphabetical Order)	
1855 PLACE-BUILDING 1801 - RENOVATION TO SPACE 1221	\$1.3M - \$1.5M
4000 COLLINS - OFFICE COMPLEX - MAIN BLDG. REFRIGERATION SYSTEM REPLACEMENT	\$3.7M - \$4.4M
4000 COLLINS - OFFICE COMPLEX - MAIN BUILDING - VARIABLE REFRIGERANT FLOW SYSTEM REPLACEMENT	\$8.0M - \$10.0M
AKERS HALL - STUDENT ROOM FURNITURE/CASE GOODS REPLACEMENT (312 ROOMS)	\$1.0M - \$1.5M
BRESLIN CENTER MASONRY RESTORATION	\$3.0M - \$4.0M
BRODY HALL CHILLER REPLACEMENT	\$2.0M - \$3.0M
CASE HALL - 2 PASSENGER ELEVATORS I OF II LIFECYCLE REPLACEMENT	\$1.0M - \$2.0M
CASE HALL - 2 PASSENGER ELEVATORS II OF II LIFECYCLE REPLACEMENT	\$1.0M - \$2.0M
CENTER FOR INTEGRATIVE PLANT SYSTEMS (CIPS) DEMOLITION	\$7.6M - \$8.6M
COMMUNICATION ARTS REPLACE CONTROLS ON HVAC UNITS 1-15	\$1.1M
COMPUTER CENTER REPLACE PCB TRANSFORMERS AND RELATED EQUIPMENT	\$3.2M
DEMOLITION - UNIT 4 BOILER AND REPLACEMENT W/ NEW HIGH-PRESSURE BOILER	\$31.2M - \$41.6M

DOMESTIC HOT WATER PIPING HOLMES HALL	\$1.0M - \$1.2M
EAST COOLING TOWER REPLACEMENT	\$10.1M - \$10.6M
ENGINEERING EGRESS LIGHTING IMPROVEMENTS	\$4.0M - \$6.0M
FOOD SCIENCE REPLACE PCB TRANSFORMERS AND RELATED EQUIP.	TBD
HOLDEN HALL REPLACE PCB TRANSFORMERS AND RELATED EQUIPMENT	\$1.7M
HOLMES HALL - NEW - LIFE SAFETY SYSTEM (INSTALLATION LOCATED IN ALL AREAS OF BUILDING)	\$16.0M - \$17.0M
HOLMES HALL - LIVING WINGS-VERTICAL RISER-DOMESTIC WATER SUPPLY PIPING LIFECYCLE REPLACEMENT	\$8.5M - \$9.5M
HOLMES HALL - STUDENT ROOM FURNITURE/CASE GOODS REPLACEMENT (664 ROOMS)	\$1.5M - \$1.6M
HUBBARD HALL - STUDENT ROOM BED REPLACEMENT (1250 BEDS)	\$1.1M - \$1.5M
INSTALL 4TH RICE ENGINE	\$23.3M - \$24.6M
IT NETWORK UPDATE (EDGE SWITCHES)	\$1.6M - \$1.8M
KBS ACADEMIC STACK HVAC MODERNIZATION	\$1.0M - \$2.0M
KBS INSTALL CAMPUS EMERGENCY POWER GENERATION	\$2.5M - \$3.0M
KELLOGG CENTER - 4 ELEVATOR REPLACEMENTS LIFECYCLE REPLACEMENT	\$2.0M - \$3.0M
KELLOGG CENTER EXTERIOR RENOVATIONS	\$1.2M - \$1.6M
KELLOGG CENTER INTERIOR RENOVATIONS	\$2.0M - \$2.5M
KELLOGG CENTER-TOWER ROOF REPLACEMENT AND CHILLED WATER LOOP REPLACEMENT; MASONRY REPAIRS ON TOWER	\$1.0M - \$1.4M
KRESGE ART REPLACE CHILLER 1	\$1.0M - \$2.0M
LIBRARY PEDESTRIAN BRIDGE REPLACEMENT	\$9.0M - \$11.0M
LIBRARY REPLACE FIRE ALARM SYSTEM	\$5.0M - \$6.0M
LIFE SCIENCE BUILDING (A&B) HVAC REPLACEMENT AND RELATED (PHASED APPROACH)	\$93.3M - \$98.7M
LIFE SCIENCE BUILDING REPLACE PCB TRANSFORMERS AND RELATED EQUIPMENT	\$2.2M
LINEN SERVICES REPLACE ELECTRICAL SUBSTATION AND MEDIUM VOLTAGE SWITCHGEAR	\$3.0M - \$4.0M
MCDONEL HALL - 4 PASSENGER ELEVATORS II OF II	\$1.0M - \$1.6M
MCDONEL HALL - NEW - LIFE SAFETY (INSTALLATION LOCATED IN EAST AND WEST LIVING WINGS)	\$12.0M - \$13.5M
MODIFICATIONS TO CONSUMERS GAS SUPPLY - GAS COMPRESSOR BLDG. REPLACEMENT	\$1.5M
MUNN ARENA LOADING DOCK RETAINING WALLS REPLACEMENT	\$1.0M - \$2.0M
NATURAL SCIENCE HVAC SYSTEM REPLACEMENT/RENEWAL	\$1.1M - \$2.0M
OWEN HALL - LIVING WINGS - VERTICAL RISER-DOMESTIC WATER SUPPLY PIPING LIFECYCLE REPLACEMENT III OF IV	\$0.9M - \$1.2M
OWEN HALL - LIVING WINGS - VERTICAL RISER-DOMESTIC WATER SUPPLY PIPING LIFECYCLE REPLACEMENT IV OF IV	\$2.2M - \$2.8M
POWER PLANT SUBSTATIONS (4160V) RENEWAL AND EXPANSION	\$12.5M - \$15.6M
PUBLIC SAFETY REPLACE FIRE ALARM SYSTEM	\$1.7M - \$3.2M
REGIONAL CHILLED WATER PLANT REPLACE CHILLERS 9 & 10	\$12.0M - \$20.0M
REPLACE COMBUSTION TURBINE ROTATING ASSEMBLY	\$4.5M - \$5.5M
REPLACE POWER PLANT MOTOR CONTROL CENTERS	\$3.2M - \$3.5M
REPLACE WATER MAIN DISTRIBUTION - (\$1.0M annually through FY31)	\$1.0M
REPLACE WELLS/WELLHOUSES (PHASE 3)	\$2.6M - \$3.6M

SANITARY/STORM RENEWAL - (\$1.0M annually through FY31)	\$1.0M
SPARTAN VILLAGE APARTMENT BUILDINGS DEMOLITION 1 OF 2	\$17.5M - \$23.5M
STEAM DISTRIBUTION RENEWAL - (\$1.0M annually through FY31)	\$1.0M
STEAM TURBINE GENERATOR STATOR REWIND	\$3.3M - \$3.7M
TB SIMON AUTOMATED LOAD SHEDDING SYSTEM	\$1.0M
TB SIMON INSTALL SECOND REVERSE OSMOSIS SYSTEM	\$1.0M - \$2.0M
TRANSITION TO OFF-SITE GENERATION FOR DEMINERALIZER	\$1.0M - \$1.7M
VANHOUSEN HALL - APARTMENT RENOVATIONS; NEW LIFE SAFETY SYSTEM INSTALLATION; MECHANICAL RENEWALS	\$1.0M - \$2.5M
VET DIAGNOSTIC LAB REPLACE CHILLERS	\$12.5M - \$13.5M
VET MED A-WING REPLACE HIGH PLUME EXHAUST SYSTEM	\$4.0M - \$5.0M
VET MED A-WING REPLACE HOT WATER HEATING SYSTEM	\$2.0M - \$3.0M
WELLS HALL PEDESTRIAN BRIDGE REPLACEMENT	\$9.0M - \$11.0M
WILSON HALL - LIVING WINGS - VERTICAL RISER-DOMESTIC WATER SUPPLY PIPING LIFECYCLE REPLACEMENT II OF V	\$2.2M - \$2.7M

Section II: Projects in Active Planning or In Process/Funding from Other Resources

Projects Authorized by the Board of Trustees for Construction (Arranged Alphabetically)	
ANAEROBIC DIGESTOR EXPANSION AND RENEWABLE NATURAL GAS FACILITY	\$27.7M
ANTHONY HALL BUILDING ENVELOPE RENEWAL	\$10.3M
ARTS AND MONUMENTS - INSTALL ART AT NORTH END OF SPARTAN STADIUM	\$1.3M
BARRIER-FREE ACCESSIBILITY PROJECTS - SINGLE OCCUPANT/ADA RESTROOMS - HIGH-PRIORITY BUILDINGS	\$2.3M
BERKEY HALL - REPLACE MECHANICAL CHILLER AND CONDENSOR	\$1.4M
BESSEY HALL - CHILLER REPLACEMENT	\$4.4M
BIOCHEMISTRY AND PSYCHOLOGY - ELEVATOR REPLACEMENTS	\$2.1M
BIOECONOMY INSTITUTE - ROOF REPLACEMENT	\$2.1M
BRESLIN - MAIN ARENA ROOF REPAIR	\$1.5M
COMPUTER CENTER - REPLACE CHILLED WATER SYSTEM CHILLER	\$1.8M
DATA CENTER - WATER COOLING TO ICER RACKS ROOM 120	\$2.8M
ELECTRICAL DISTRIBUTION - AKERS - REPLACE PCB TRANSFORMERS AND RELATED EQUIPMENT (FY25)	\$3.0M
ELECTRICAL DISTRIBUTION - CONNECT WELL HOUSES 21, 22, 23 AND 24 TO POWER PLANT	\$1.3M
ELECTRICAL DISTRIBUTION - FOOD STORES - REPLACE OVERLOADED SUBSTATION (FY25)	\$2.8M
FARM LANE ROAD AND UTILITY RECONSTRUCTION	\$22.0M
FEBRUARY 13TH PERMANENT MEMORIAL	\$4.2M
FEE HALL - RENOVATIONS TO ROOMS E206, E214, E215, E216, E220, E220G/H/F AND CORRIDORS	\$1.2M
FRIB - FOURTH FLOOR OFFICE TOWER RENOVATIONS	\$4.4M
FRIB - LASER LAB	\$3.6M
GILTNER HALL - REPLACE REMAINING ORIGINAL GALVANIZED PIPING (FY25)	\$2.6M

HANNAH ADMINISTRATION - UPGRADE PCB TRANSFORMERS AND ELECTRICAL EQUIPMENT	\$3.0M
HANNAH TECH RESEARCH CENTER COMPLEX - CENTURY BOND APPROVED RENOVATIONS	\$6.5M
HUMAN ECOLOGY - REPLACE ROOFS AND COMPLETE MASONRY RESTORATION (FY25)	\$1.6M
IM WEST DEMOLITION	\$6.9M
KBS GREENHOUSE REPAIRS	\$1.0M
KELLOGG CENTER - FIRE ALARM SYSTEM REPLACEMENT	\$1.1M
LEINWEBER CENTER FOR ENGINEERING AND DIGITAL INNOVATION - CONSTRUCT ORIGINAL BUILDING	\$340.0M
MSU HEALTH CARE - MEDICAL OFFICE - REPLACE ROOF	\$1.3M
MSU HEALTH CARE INC. - RENOVATIONS TO BUILDING AT 4660 HAGADORN (HAGADORN MEDICAL OFFICE)	\$6.5M
MSU, HENRY FORD HEALTH SYSTEM PARTNERSHIP - NEW RESEARCH BUILDING (DETROIT)	\$335.0M
OWEN GRADUATE HALL - REPLACE 8 VERTICAL RISERS	\$1.3M
OWEN HALL - LIVING WINGS - VERTICAL RISER-DOMESTIC WATER SUPPLY PIPING LIFECYCLE REPLACEMENT II OF IV	\$1.4M
PACKAGING BUILDING PHASE 2.0	\$42.5M
PLANT AND ENVIRONMENTAL SCIENCES - RESEARCH, TEACHING AND LEARNING - NEW CONSTRUCTION	\$200.0M
PSYCHOLOGY - REPLACE PCB TRANSFORMERS, MVG & RELATED EQUIPMENT	\$4.0M
RESIDENCE HALLS - WI-FI NETWORK DEFERRED MAINTENANCE, INFRASTRUCTURE & EQUIPMENT UPGRADES	\$4.7M
SPARTAN CHILD DEVELOPMENT - REPLACE DRY AND WET SUPPRESSION SYSTEMS (FY26)	\$1.1M
SPARTAN SUCCESS CENTER - HANNAH ADMINISTRATION BUILDING	\$5.2M
STEM TEACHING AND LEARNING FACILITY FOURTH FLOOR FIRE / LIFE SAFETY MODIFICATIONS	\$1.8M
STUDENT RECREATION & WELLNESS CENTER - PHASE 1 & 2. (Building open for use; pool to be completed Jan. 27)	\$200.0M
TB SIMON POWER PLANT - ADDITION 6 - COMBINED HEAT AND POWER UNIT	\$185.0M
TB SIMON POWER PLANT - INSTALL SECURITY AROUND PLANT AND GAS YARD	\$2.0M
TRANSPORTATION SERVICES-GARAGE - CONSTRUCT ORIGINAL BUILDING	\$24.2M
VETERINARY MEDICAL CENTER - REPLACE ELEVATORS 3 AND 4	\$1.5M
WEST REGIONAL CHILLED WATER PLANT - CONSTRUCT ORIGINAL BUILDING	\$145.0M
WHARTON - RENOVATIONS TO CONCESSIONS AND DRESSING ROOMS	\$1.3M
WHARTON - REPLACE ELEVATORS 1, 2 AND 3	\$2.0M
WILSON HALL – RENOVATIONS FOR TECHNOLOGY ENGINEERING AND LIFE SAFETY IMPROVEMENTS	\$35.5M
Projects Authorized for Planning (In Design, Arranged Alphabetically)	
AGBIORESEARCH - ANAEROBIC DIGESTOR REPAIRS & ENHANCEMENTS - PHASE 2.5	\$2.5M - \$4.0M
CHEMISTRY HVAC REPLACEMENT AND IMPROVEMENT	\$70.0M
CLINICAL CENTER-CLINIC - RENOVATIONS TO SUITE E120 (CYCLOTRON REPLACEMENT AND RADIOPHARMACY EXPANSION)	\$1.2M - \$4.0M
FARM BUREAU PAVILION AT MICHIGAN STATE UNIVERSITY - ADDITION	\$9.7M - \$16.0M
FRIB ELECTRICAL SUBSTATION REPLACEMENT	\$4.3M - \$4.6M
HEALTH EDUCATION BUILDING - TEACHING AND LEARNING AND ACADEMIC SUPPORT - RENOVATIONS AND/OR NEW CONSTRUCTION (EAST LANSING)	\$230.0M

IPF WELDING SHOP AND UTILITY DISTRIBUTION CREW FACILITY	\$2.0M
JENISON FIELD HOUSE LED/INFRASTRUCTURE REPLACEMENT	\$1.3M - \$1.4M
JENISON FIELDHOUSE - INFILL POOL AND ALTERATIONS TO ROOM 135	\$3.0M
LIBRARY AND WELLS HALL PEDESTRIAN BRIDGE RESTORATION	\$1.2M
LIBRARY NORTH PLAZA RENOVATIONS	\$10.4M
MCDONEL HALL - RENOVATIONS TO PASSENGER ELEVATORS	\$1.3M
OFFICE COMPLEX - MAIN BUILDING - (4000 COLLINS) VRF REPLACEMENT 3RD FLOOR SOUTH	\$1.0M
QUANTITATIVE FISHERIES CENTER - NATURAL RESOURCES BUILDING	\$1.2M - \$1.4M
REPLACE WELLS/WELLHOUSES (WELL 20R)	\$3.0M
REPLACE WELLS/WELLHOUSES (WELL 32)	\$2.0M - \$3.0M
SPARTAN GATEWAY DEVELOPMENT - ATHLETIC AND RECREATION DISTRICT	TBD
SPARTAN STADIUM MODERNIZATION - EAST SIDE ADDITION	\$550.0M
VETERINARY MEDICAL A-WING DOMESTIC WATER AND INFRASTRUCTURE	\$17.0M

Addressing the above projects is extremely important to the effectiveness of academic programs and to the operational efficiency of the institution. Funding these projects is consistent with the university's commitment to responsible stewardship of critical state and institutional resources. The investment ensures the capital infrastructure to carry out MSU's commitment to intellectual leadership in developing new knowledge for students and the public in measurable ways.

VI. Capital Outlay Planning

The capital planning priorities support programs that have strong national reputations, expanding research bases, and high enrollment demand that will sustain the university and increase its contributions to Michigan. Funding these requests provides economic development in the state, now and in the long term.

Renovations and Additions

Renovations and/or additions address extensive programmatic and maintenance improvements required by buildings previously funded by the state. The improvements are necessary to reconfigure and/or expand space to support the work of the programs housed in those facilities, to create core/shared research support facilities and modern learning spaces; and in some instances, adaptive re-use or modernization of aging buildings, including alignment with current codes and provisions for accessibility.

Major renovations include plant sciences, biomedical and biological sciences, water and energy, and the arts.

New Construction

New construction is needed to support high-priority instructional, research, and research support programs. These facilities are necessary to support current and future programmatic initiatives in the STEM disciplines, including engineering, physical and agricultural sciences, biomedical, and animal and health sciences.

Major Systems Replacement

In view of the extensive facility needs it faces, MSU has drawn upon an increasing amount of internal university resources to address the most critical facility maintenance and programmatic requirements. Self-funding these capital improvements is not sustainable without negative impacts on other programs. Examples of systems in need of repair or replacement include roofing, windows, electrical, mechanical, chiller, refrigeration, steam, fire, security, and barrier-free access.

VII. Conclusion

Michigan State University drives exploration and innovation while empowering excellence, advancing opportunity, and expanding impact. MSU uses its facilities to attract top talent across students, faculty and staff, and routinely receives more than \$720 million in sponsored awards annually with research expenditures of \$992 million in 2025. The university and its scholars excel in a breadth and depth of areas including nuclear physics, food security, plant sciences; sustainable health sciences; material sciences, basic sciences such as chemistry, microbiology, and molecular genetics; computational sciences, and population and the environment, including food, water, and energy. MSU's programmatic investments complement student success goals to provide an inclusive, equitable curriculum and environment with the academic, social, wellness, and financial support that enables all students to learn, thrive, persist, graduate, and succeed after graduation.

More than 90% of MSU's graduates are employed or continuing their education within nine months of graduation. Among employed graduates in 2025, 64% remained in Michigan with an additional 15% employed in states in the region.

Michigan State University creates annual statewide economic impact of \$9.7 billion and instills an entrepreneurial and high-performance mindset in its students, faculty, and staff.

MSU works collaboratively in the cities of Flint, Detroit, and Grand Rapids to provide expertise and a network of resources in education, food, water, health, and sustainability. MSU Extension's presence extends to all 83 Michigan counties, sharing resources and expertise to advance the state and its economy. Agriculture is one of Michigan's top three industries. MSU AgBioResearch and MSU Extension contribute research, educational programs, and expertise to boost economic development and growth in agriculture, natural resources, community vitality, entrepreneurship, and career preparation for young people.

MSU's strategic plan guides investment in areas of established and emerging excellence to address global challenges and to meet pressing communities' needs in Michigan, in the United States, and around the world. MSU advances opportunities and ethics to improve the human condition. Our collaborative and interdisciplinary investments support an environment that is well positioned to address the grand challenges locally and globally. By 2030, we envision a Michigan State University that has significantly expanded opportunity and advanced access, elevated its excellence in ways that attract vital talent and support, and has a vibrant, caring community.

Appendices

Appendix A: Mission Statement

Appendix B: Vision 2050: Integrated Facilities and Land Use Plan

Appendix C: Buildings by Age

Appendix D: Student Enrollments – Fall Semester 2026

Appendix E: Facility Condition Assessment

Appendix F: Utility System Condition and Renewal Priorities

Appendix G: SFY2028 Capital Outlay Request

Fiscal Year 2028 Budget Information

5-Year Capital Plan

Submitted By:

Fall 2026

Appendix A: Mission Statement

Fiscal Year 2028
Budget Information

5-Year Capital Plan

Submitted By:

MICHIGAN STATE
UNIVERSITY

MSU Mission Statement

The following statement was approved by the Board of Trustees on April 18, 2008

Michigan State University, a member of the Association of American Universities and one of the top 100 research universities in the world, was founded in 1855. We are an inclusive, academic community known for our traditionally strong academic disciplines and professional programs, and our liberal arts foundation. Our cross- and interdisciplinary enterprises connect the sciences, humanities, and professions in practical, sustainable, and innovative ways to address society's rapidly changing needs.

As a public, research-intensive, land-grant university, funded in part by the State of Michigan, our mission is to advance knowledge and transform lives by:

- providing outstanding undergraduate, graduate, and professional education to promising, qualified students in order to prepare them to contribute fully to society as globally engaged citizen leaders
- conducting research of the highest caliber that seeks to answer questions and create solutions in order to expand human understanding and make a positive difference, both locally and globally
- advancing outreach, engagement, and economic development activities that are innovative, research-driven, and lead to a better quality of life for individuals and communities, at home and around the world

Appendix B: Vision 2050: Integrated Facilities and Land Use Plan

Update December 2023

Link to full plan:
<https://campusplan.msu.edu/Report>

**Fiscal Year 2028
Budget Information**

5-Year Capital Plan

Submitted By:

**MICHIGAN STATE
UNIVERSITY**



Vision 2050

**An Integrated Facilities and Land Use Plan
for Michigan State University**

December 2023

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Foreword

I am pleased to share with you *Vision 2050: An Integrated Facilities and Land Use Plan for Michigan State University*, and call upon us all to envision the future etched out in placemaking.

Over the past two years, our Spartan community visualized the physical requirements of our multi-location campus in serving our people and their purpose. *Vision 2050: An Integrated Facilities and Land Use Plan* is predicated on the pillars of the University Strategic Plan and with every future shovel in the ground and crane in the air, our campus will be molded by the vision of today for a new generation of Spartans. On December 15, 2023, the Board of Trustees ratified these bold goals enabling our work to begin.

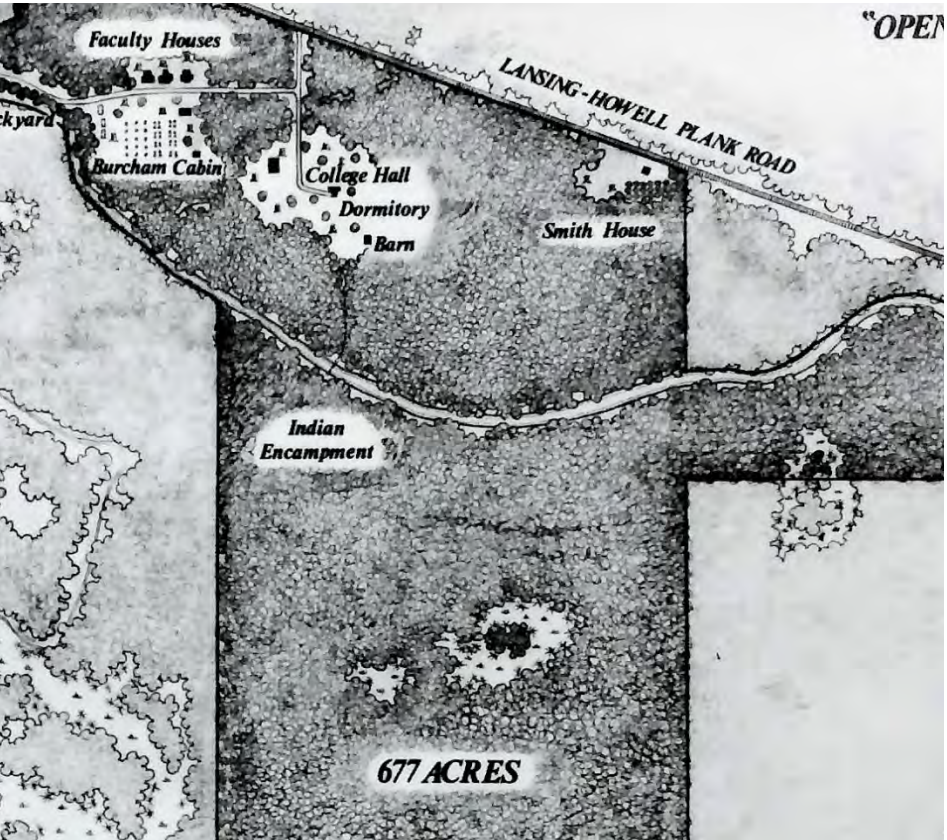
Join me in seeing excellence in the built as well as protected and unspoiled parts of our campus locations by paging through the attached plan. For this is a time when our people are redefining education, research and outreach by placemaking on a scale that will be transformative to our shared purpose.

I hope you see yourself and your work in this plan and look forward to your engagement as we take the next ambitious steps in the making of a great university.

Teresa K. Woodruff, Ph.D.
Interim President
Michigan State University

Land Acknowledgment

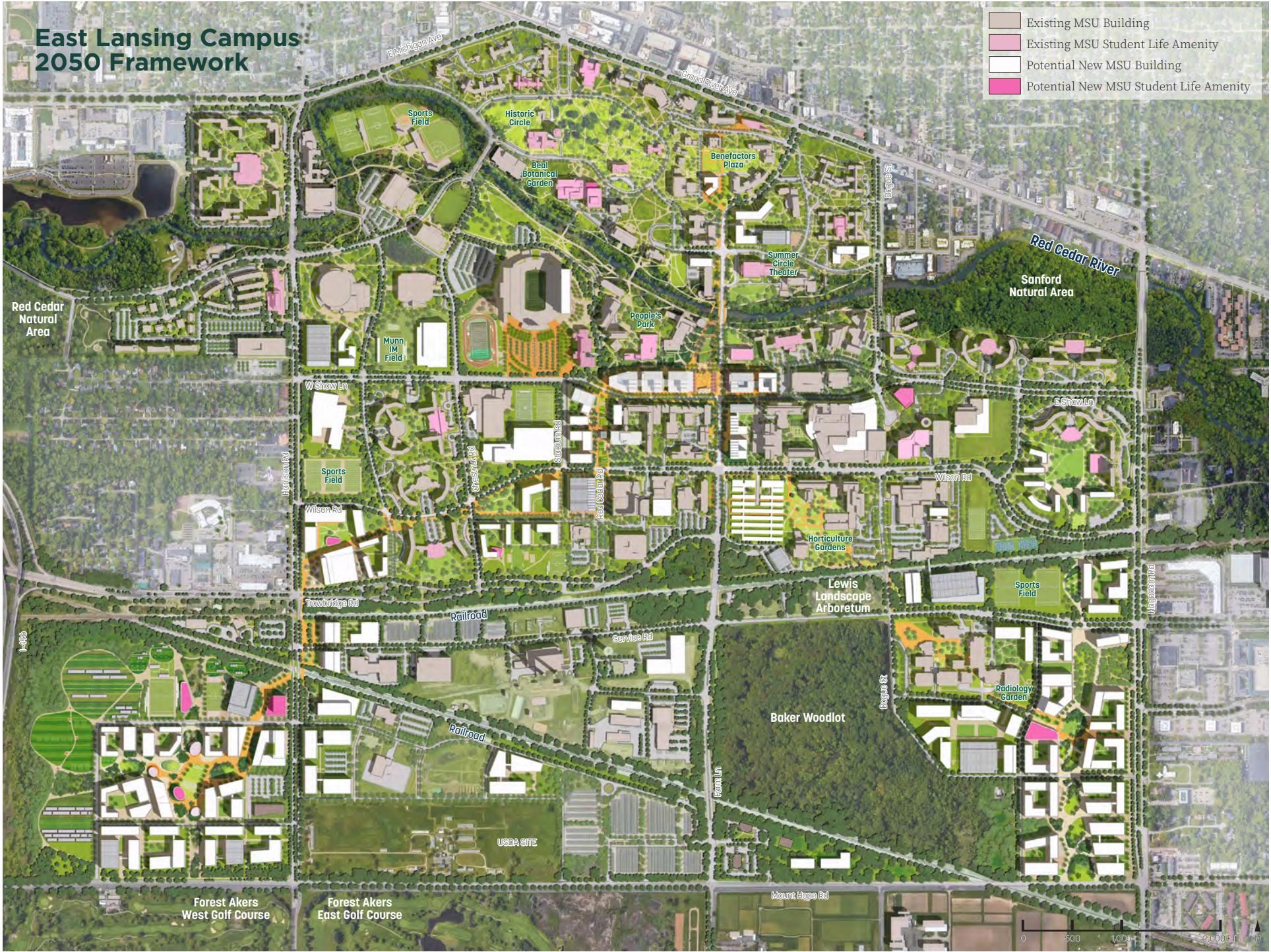
We collectively acknowledge that Michigan State University occupies the ancestral, traditional, and contemporary Lands of the Anishinaabeg – Three Fires Confederacy of Ojibwe, Odawa, and Potawatomi peoples. In particular, the University resides on Land ceded in the 1819 Treaty of Saginaw. We recognize, support, and advocate for the sovereignty of Michigan’s twelve federally-recognized Indian nations, for historic Indigenous communities in Michigan, for Indigenous individuals and communities who live here now, and for those who were forcibly removed from their Homelands. By offering this Land Acknowledgement, we affirm Indigenous sovereignty and will work to hold Michigan State University more accountable to the needs of American Indian and Indigenous peoples.

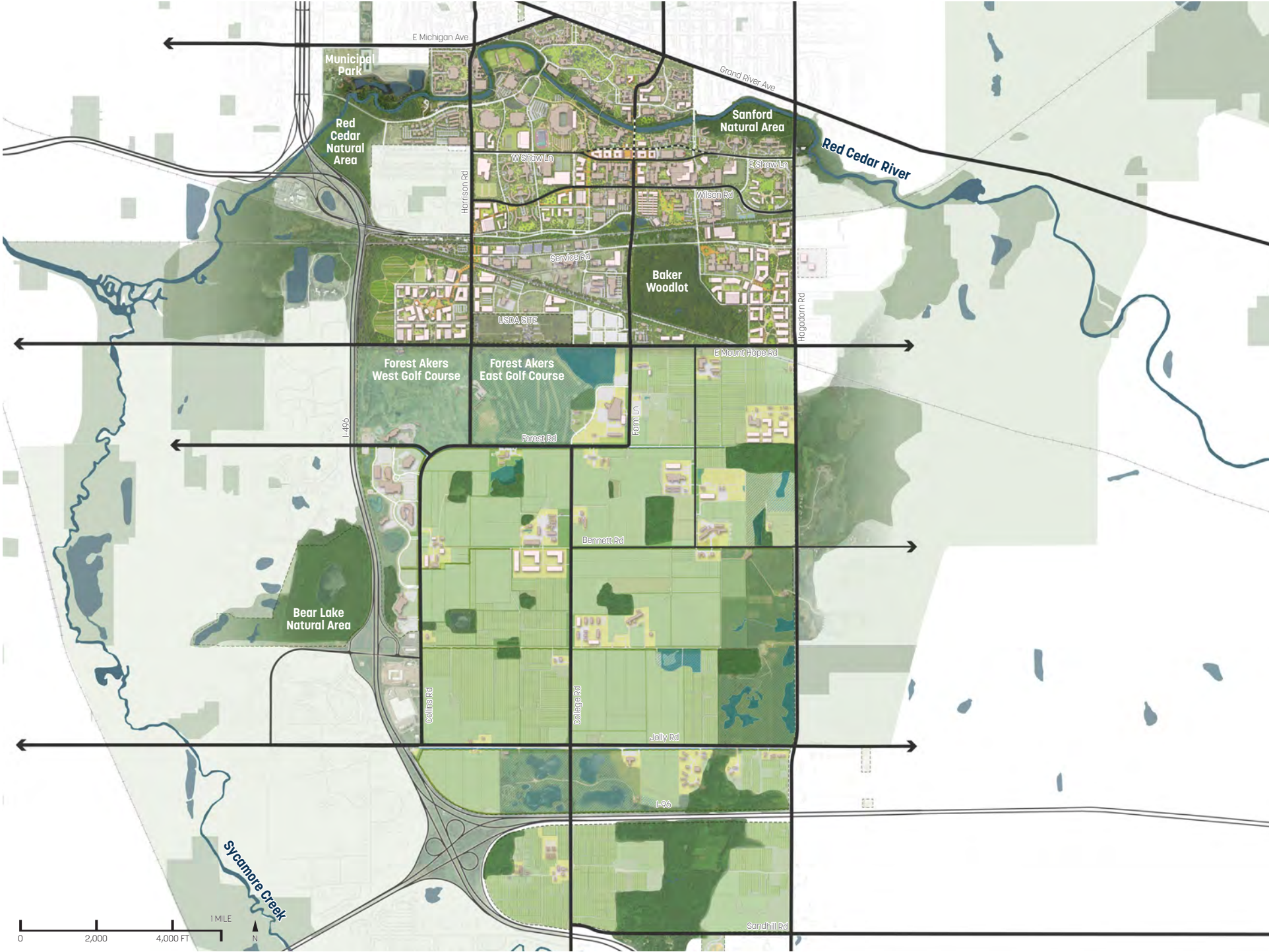


An 1857 map shows Indian Encampment areas on the site of The Agricultural College of the State of Michigan.

1 Executive Summary







Executive Summary

Vision 2050: An Integrated Facilities and Land Use Plan for Michigan State University provides a framework for future development on the university’s campuses and landholdings. Guided by the MSU 2030 Strategic Plan, the plan was developed over approximately 24 months beginning in early 2022. It incorporates a diverse range of institutional goals into a set of near- and long-term recommendations guided by three strategic documents including the MSU 2030 Strategic Plan: Empowering Excellence, Advancing Equity and Expanding Impact, the Diversity, Equity and Inclusion Strategic Plan, and the Relationship Violence and Sexual Misconduct Strategic Plan.

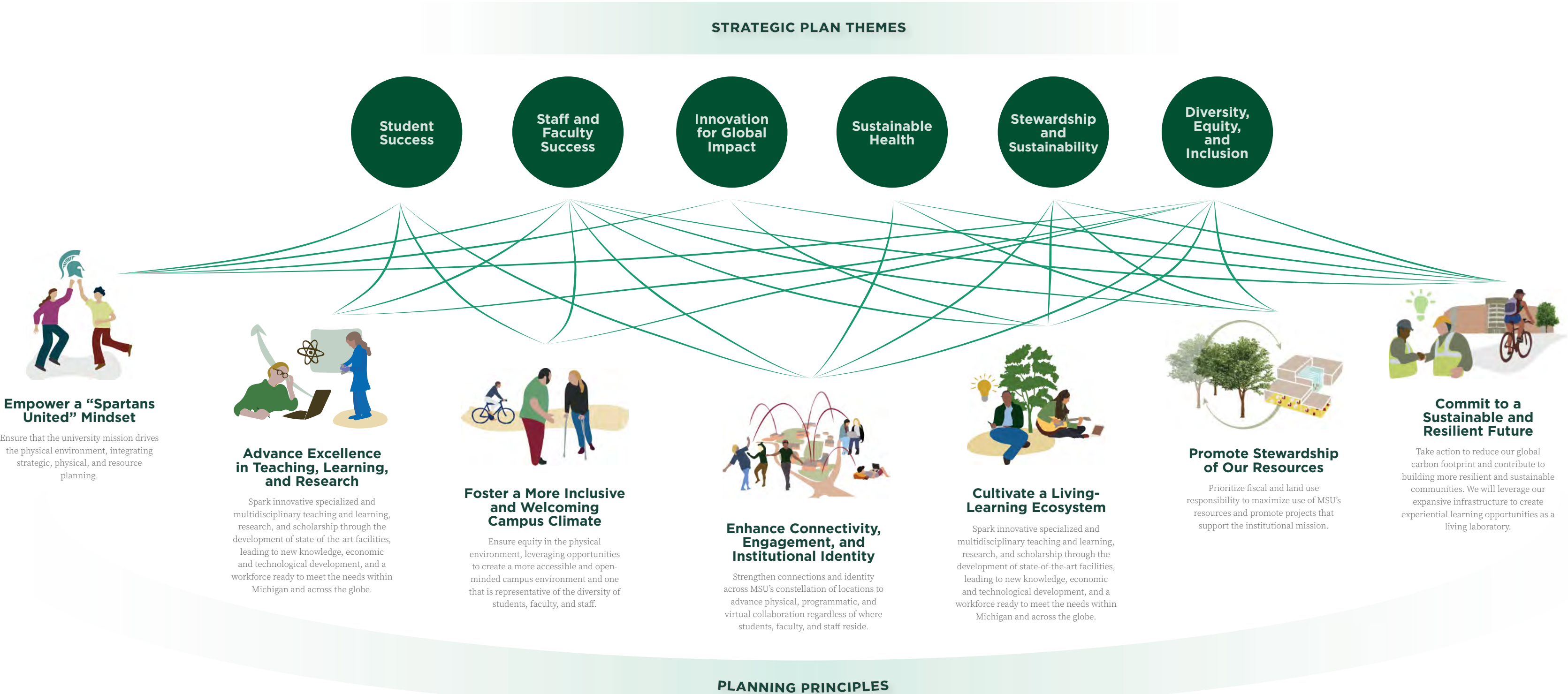
The plan recommendations reflect over 80 stakeholder interviews involving over 660 participants, an interactive map-based survey with nearly 900 respondents, and multiple public forums, which provided the consultant team a detailed understanding of the university’s facility needs, its strategic goals, and other contingent issues to future development.

As the consultant team formulated campus development scenarios, ideas were tested alongside university stakeholders through both in-person work sessions and virtual open houses, ensuring that the plan recommendations reflect the diverse, in-depth knowledge of the MSU community.

While flexible in nature, the plan recommendations affirm MSU’s goals of academic excellence; student success; diversity, equity, and inclusion; novel partnership opportunities; resilient and sustainable land use; and a mission that advances the state-wide economy. These goals embedded themselves throughout state-wide facilities and across each of the East Lansing Campus’s precincts, resulting in distinct recommendations around the buildings, mobility networks, open spaces, and utility systems that will support the university’s next generation of development.

Strategic Plan Themes Inform Principles

Vision 2050 serves to guide changes to the built environment at MSU over time. Informed by the strategic plan, MSU 2030: Empowering Excellence, Advancing Equity and Expanding Impact, it will act as a bridge between ideas and physical implementation, strategically positioning the university to make decisions that optimize future investments across campuses while building incrementally toward a powerful, grander vision. The MSU 2030 themes serve as a basis for the seven guiding principles for Vision 2050.





Interior Atrium in Central Campus

Support Academic Excellence

The university's mission is to advance knowledge and transform lives by providing outstanding undergraduate, graduate and professional education; conducting research of the highest caliber; and advancing outreach, engagement and economic activities. MSU is an inclusive academic community known for traditionally strong academic disciplines, professional programs, and liberal arts foundation. Its cross- and interdisciplinary enterprises connect the sciences, humanities, and professions in practical, sustainable, and innovative ways to address society's rapidly changing needs.

Vision 2050 builds on the university's academic success by providing compact, mixed-use academic districts, expanding opportunities for research and innovation, and preserving the campus park, agricultural lands, and natural areas for its academic mission. Improvements to the campus landscape and academic facilities bring together students, faculty, and staff to elevate core strengths while improving opportunities for interdisciplinarity.



Red Cedar Promenade looking South towards Wilson Road

Bolster Student Success

Michigan State University has set a benchmark for student success among peer institutions through its commitment to developing well-rounded citizen learners. Its “neighborhood” model integrates touch-down spaces for student services that allow career coaches, academic advisors, and counseling staff to be embedded within the residential neighborhoods. Recent and ongoing investments in new academic buildings and student-centered facilities, such as the STEM Building and the Multicultural Center, continue to provide a more balanced spectrum of spaces for students to collaborate.

Vision 2050 leverages the success of these initiatives. It provides hubs for student collaboration within each of the campus’s academic precincts through a mixture of new facilities that add density and walkability, renovation to strategic facilities, and demolition of poor quality buildings. Additionally, the plan expands on the “neighborhood” model, renewing and expanding housing capacity where necessary and continuing to embed key nodes for students to meet with faculty and support staff, providing services critical to their success.



Central Plaza looking North towards Pedestrianized North Shaw Lane

Foster Diversity, Equity, and Inclusion

As the university's global reach has expanded, so has the diversity of the campus community. Vision 2050 supports goals of diversity, equity, and inclusion by creating a campus that is more accessible and expands the range of spaces and amenities available. The plan protects and expands lands that have supported indigenous culture and rituals for generations prior to the university's founding. Its landscape recommendations complement the historic, park-like setting of the historic campus with a civic realm that provides a more diverse array of open spaces.

The plan reflects the need for interior spaces that meet the university's increasingly diverse population. Within each campus precinct, indoor gathering spaces anchor significant landscapes, enhancing the sense of community and belonging. The plan also recognizes that today's diverse population has broader needs for mental, physical, and social well-being and recommends that improvements to the built environment incorporate spaces to build identity, find solace, practice faith, and attend to other physical and mental health needs.



Research Plaza at South Academic Campus looking towards Center Green

Promote Research and New Partnerships

Michigan State University is renowned for impactful scholarship that addresses pressing global challenges, generating global leadership across a broad range of academic disciplines.

Vision 2050 recommends the preservation and, where necessary, expansion of the university's research land resources, ensuring future generations can sustain the region's food systems and ecological resources through research initiatives. The plan recommends space for potential expansion for biomedical research within Southeast Campus and potential capacity for affiliated partners to develop research facilities that translate MSU's expertise to the commercial realm.

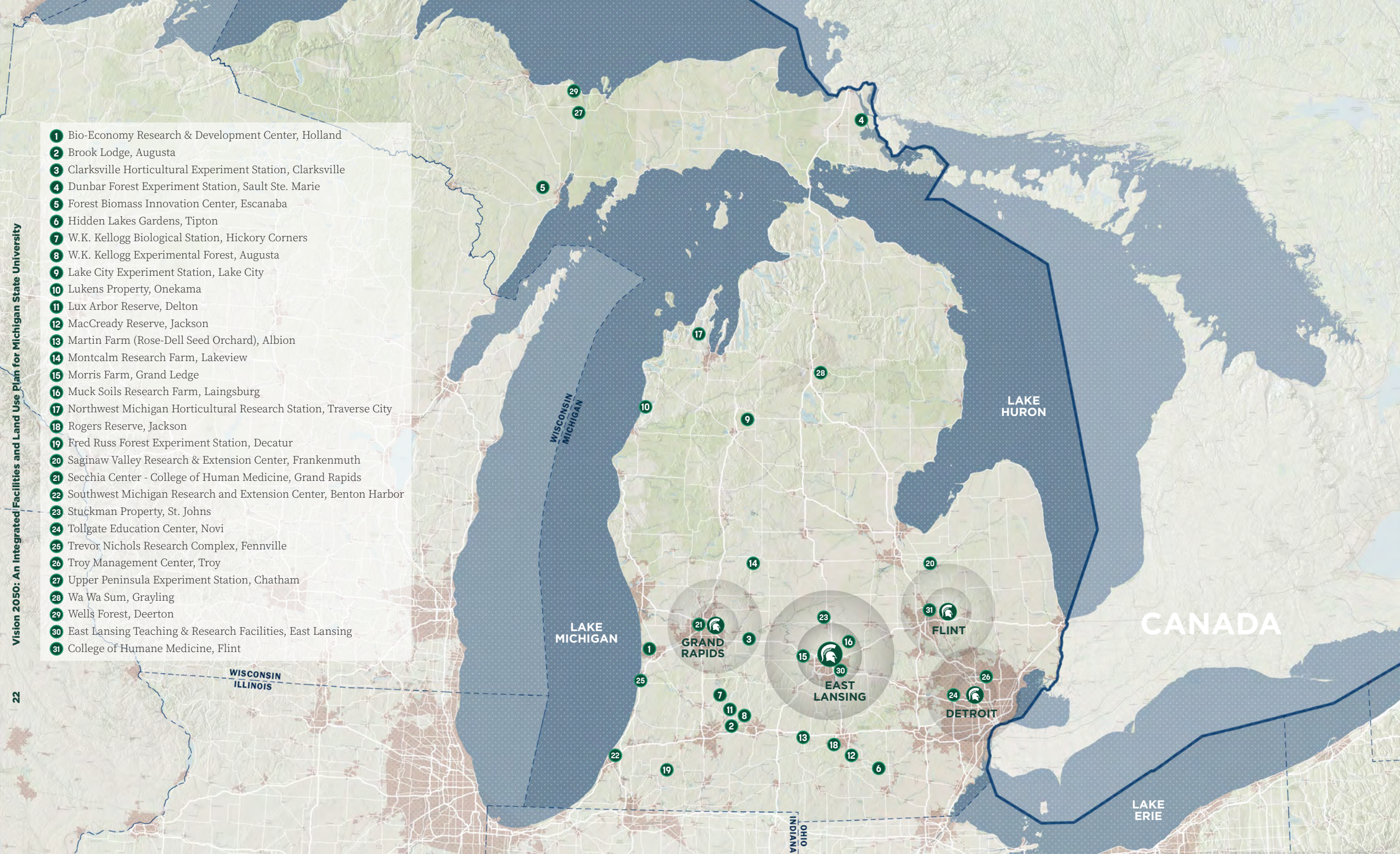
On the former site of Spartan Village, the plan defines a long-term vision for a precinct with a diverse mix of uses, such as housing, research, and affiliated business partners, providing MSU with flexibility and capacity to meet evolving partnership needs.



North bank of Red Cedar River looking East

Model Holistic Water Management Strategies

Stormwater management and resilient land-use patterns unfold at a variety of scales across the MSU campus. At the individual site, implementing water treatment, retention, and detention strategies should reflect future development conditions. The treatment of runoff, infiltration into groundwater systems, and mitigation of peak flow should all work to reduce flood risks downstream of the campus. The campus-scale lens evaluates the inter-connectivity of the watershed, evaluating topography and storm drain outfalls to mitigate flooding and overwhelming the system. Finally, the river-scale lens considers the floodplain interactions with the campus facilities, looking to restore floodplain buffer to reduce the impact of fluctuations in flow that come with changing seasons and add programmable outdoor space that enhances teaching and learning.



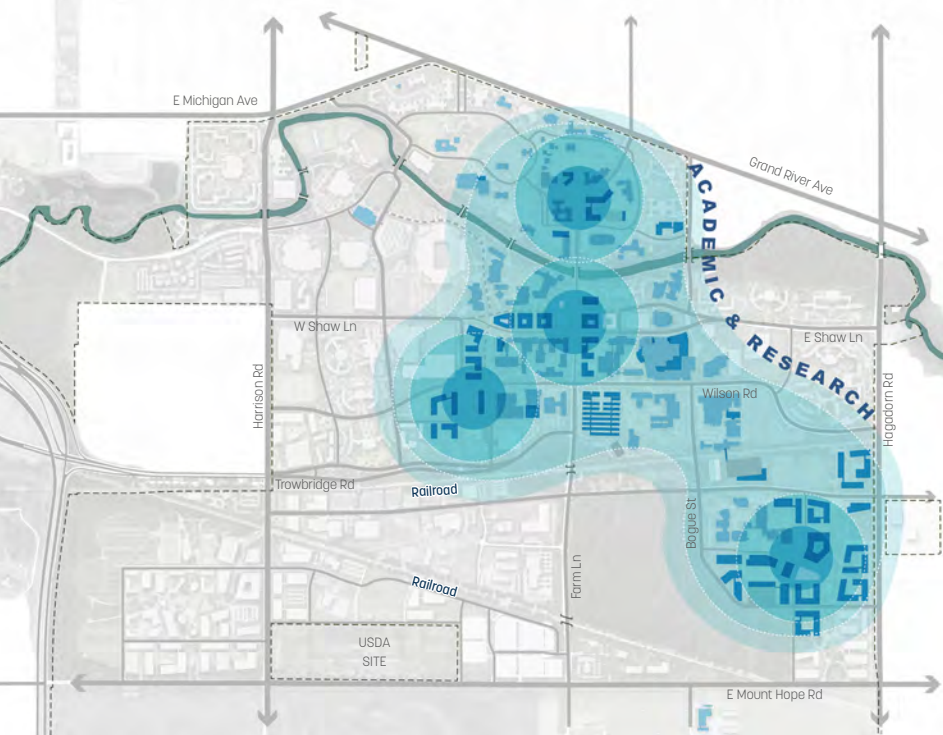
- 1 Bio-Economy Research & Development Center, Holland
- 2 Brook Lodge, Augusta
- 3 Clarksville Horticultural Experiment Station, Clarksville
- 4 Dunbar Forest Experiment Station, Sault Ste. Marie
- 5 Forest Biomass Innovation Center, Escanaba
- 6 Hidden Lakes Gardens, Tipton
- 7 W.K. Kellogg Biological Station, Hickory Corners
- 8 W.K. Kellogg Experimental Forest, Augusta
- 9 Lake City Experiment Station, Lake City
- 10 Lukens Property, Onekama
- 11 Lux Arbor Reserve, Delton
- 12 MacCready Reserve, Jackson
- 13 Martin Farm (Rose-Dell Seed Orchard), Albion
- 14 Montcalm Research Farm, Lakeview
- 15 Morris Farm, Grand Ledge
- 16 Muck Soils Research Farm, Laingsburg
- 17 Northwest Michigan Horticultural Research Station, Traverse City
- 18 Rogers Reserve, Jackson
- 19 Fred Russ Forest Experiment Station, Decatur
- 20 Saginaw Valley Research & Extension Center, Frankenmuth
- 21 Secchia Center - College of Human Medicine, Grand Rapids
- 22 Southwest Michigan Research and Extension Center, Benton Harbor
- 23 Stuckman Property, St. Johns
- 24 Tollgate Education Center, Novi
- 25 Trevor Nichols Research Complex, Fennville
- 26 Troy Management Center, Troy
- 27 Upper Peninsula Experiment Station, Chatham
- 28 Wa Wa Sum, Grayling
- 29 Wells Forest, Deerton
- 30 East Lansing Teaching & Research Facilities, East Lansing
- 31 College of Humane Medicine, Flint

State-wide Integration

Michigan State's presence in regional hubs like Detroit, Flint, and Grand Rapids is essential to expanding its research, education, and outreach missions. Additionally, MSU maintains Extensions and AgBio Research stations throughout all 83 counties in the state. Collectively, these distributed hubs allow MSU to connect its research and academic initiatives with individuals and communities across the state.

Vision 2050 includes findings from meetings with representatives from the university's academic and research units, identifying existing and potential programmatic needs across its statewide locations. It provides flexible recommendations for these facilities to ensure the university continues to connect its world-class research with the citizens of Michigan.

LAND USE FRAMEWORKS



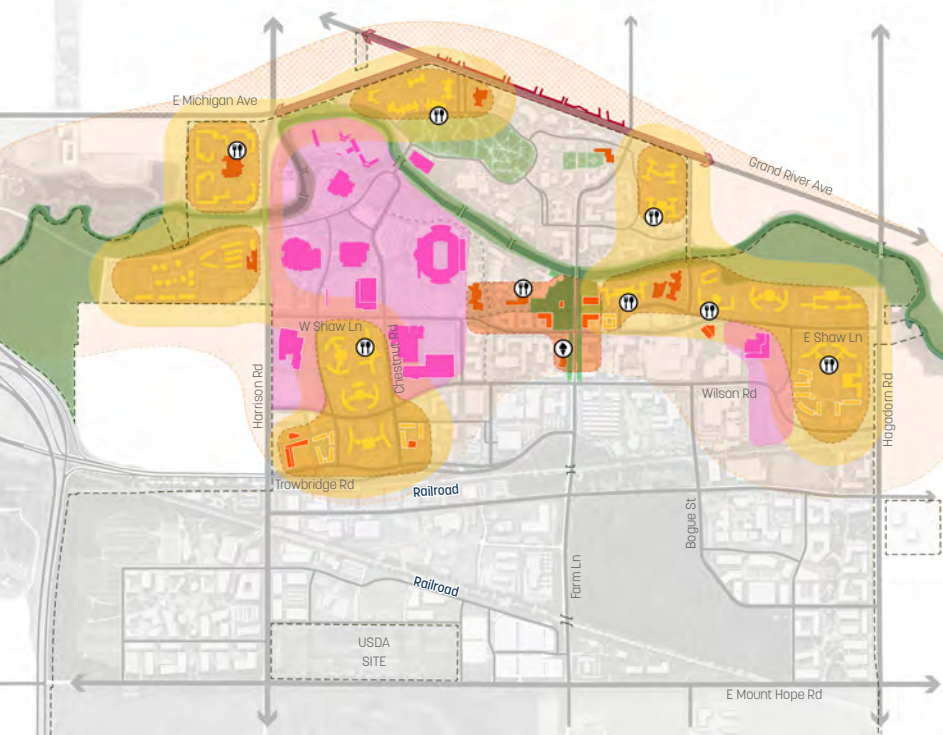
Academic Crescent

The plan intentionally concentrates academic and research facilities along a crescent that connects the former Spartan Village, the intersection of Farm and Shaw, and Southeast Campus. This focused development pattern maximizes programmatic synergies, utilizes the university’s land to its highest and best potential, provides efficient accessibility to these resources, and minimizes costly extensions to supporting infrastructure. Proximity for class change and research collaboration is critical.



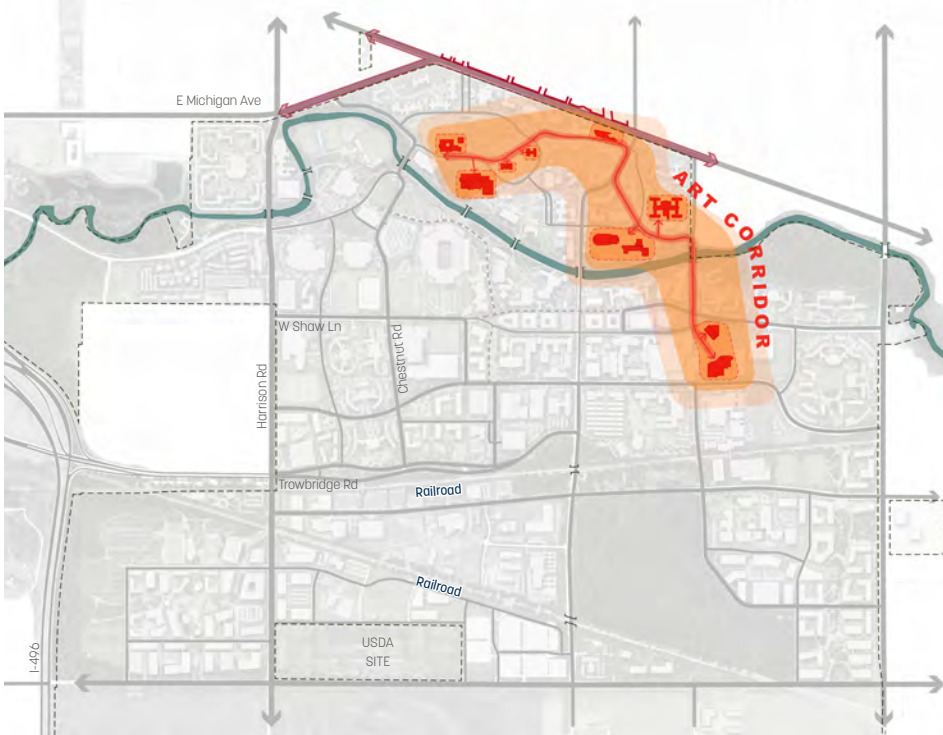
Research Gateways

In addition to university-sponsored research and academic growth, the plan anticipates sites for partnerships that advance its teaching, research, and outreach mission. These support new gateways to campus at its southeast, along Hagadorn Road, and its southwest, along Harrison Road.



Campus Life Nodes

The plan provides a flexible approach to the potential expansion or renewal of existing student housing and student life amenities. It concentrates improvements within or adjacent to MSU’s existing residential neighborhoods, ensuring efficient access to academic resources and amenities that support the development of the whole student. Given the success of the residential neighborhoods, this same intention to support the whole student should be considered within academic districts to promote student health and wellbeing throughout the day.



Arts and Culture Corridor

Creative inquiry and the arts are fundamental to advancing knowledge and developing a vibrant campus community. The plan identifies a corridor that connects the Wharton Center for the Performing Arts north to Kresge Art Center, the Auditorium, and Broad Art Museum. This spine not only unifies the university’s multiple facilities for visual and performing arts but also tie it to the vibrant retail and dining district along Grand River Avenue, thereby stitching the university’s artistic mission with East Lansing’s cultural context.

2 Introduction



Purpose

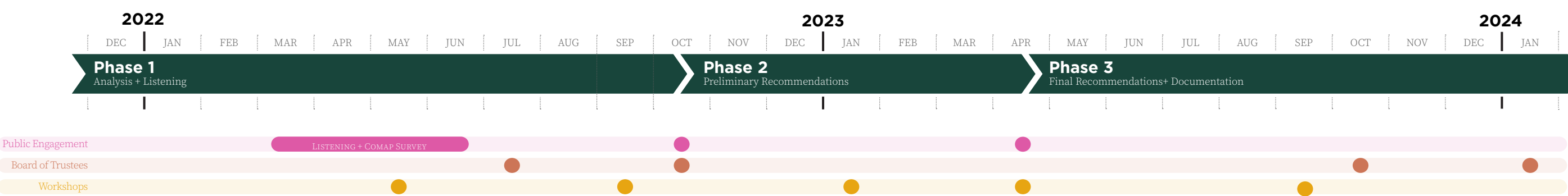
Vision 2050 provides a flexible framework to guide future decisions regarding land use, buildings, facilities, and mobility. It builds upon the physical framework established in the 2017 Campus Land Use Plan Update, incorporating recent efforts including precinct-level planning studies, unit and thematic planning and programming studies, feasibility studies, and anticipated capital projects. The plan identifies drivers for MSU’s academic, research, and outreach mission, recommending improvements to the East Lansing campus and MSU’s other state-wides presences to advance these drivers.

Process

The planning process unfolded over approximately 24 months, from project kickoff in January 2022 to Board of Trustees approval in December 2023, and was guided by a three-phase structure: Analysis and Listening, Preliminary Recommendations, and Final Recommendations and Documentation. A clear management hierarchy ensured regular engagement with university stakeholders at appropriate intervals.

A core team of representatives from Infrastructure Planning and Facilities (IPF) and Institutional Space Planning and Management (ISPM) met weekly with the consultant team to coordinate the planning process and ensure regular feedback on the advancement and messaging of the plan’s findings. The consultant team met with a Project Management Team approximately once per month; this team provided strategic guidance on the master plan’s recommendations. Additionally, the consultant team provided periodic updates to both the Executive Committee for Buildings, Facilities, and Space (ECBFS) and Campus Infrastructure Planning Work Group (CIPWG). Both groups provided input on the plan’s development and recommendations.

In addition to these recurring meetings, the consultant team conducted over 80 stakeholder interviews that included over 660 participants with individual representatives or small groups to identify programmatic and facility needs. Additionally, technical working groups around key themes assisted in developing specific campus systems. Finally, throughout the planning process, the planning team provided opportunities for the public to give feedback on the findings and recommendations of Vision 2050.



Phase 1: Analysis & Listening

Phase 1 of Vision 2050 began with the consultant team developing a comprehensive understanding of MSU’s East Lansing campus and other statewide locations. The team assimilated and analyzed a wealth of data provided by MSU to understand the institution’s history and trajectory, its programs, and the buildings and landscapes that serve it. A series of over 80 stakeholder interviews that included over 660 participants and a community-wide CoMap survey provided a nuanced, qualitative overlay of the opportunities and challenges the plan would need to address. In combination, these resulted in a summative existing conditions analysis.

Phase 2: Preliminary Recommendations

The second phase of work tested two options for near-term (10-year) and long-term (30-year) development on the East Lansing campus. Each framework alternative examined the impacts on land use, parking and mobility, open space, and other functions at the scale of the 5,200-acre East Lansing campus and within each precinct. In consultation with the MSU project management and core teams, the team developed a preferred framework alternative that combined elements from the two framework scenarios. At the end of Phase 2, the preferred alternative was presented to the campus community through in-person and virtual open houses to provide feedback and ensure consensus for the final recommendations.

Phase 3: Final Recommendations & Documentation

Based on feedback on the preferred alternative, the consultant team advanced a cohesive set of campus- and precinct-level recommendations. Driven by the 5-year Capital Request Planning and Capital Outlay Request, the preferred alternative included an implementation strategy to flexibly anticipate the range of funding resources available to the university. The final recommendations delineate major and minor open spaces, provide schematic massings for campus buildings, identify strategies for parking and circulation, and recommend potential property acquisitions. The consultant team presented final recommendations to MSU leadership and the broader university community, and the Board of Trustees adopted Vision 2050 in December 2023.

Engagement

Building consensus around the findings and recommendations of any planning effort is critical to successful implementation. As Vision 2050 unfolded, the consultant team relied on a mix of in-person and virtual strategies to ensure a diverse set of constituencies informed the planning process.

Listening Sessions

The consultant team conducted over 80 listening sessions including over 660 participants sessions throughout the planning process. These included individual interviews with members of university leadership; conversations with deans, vice presidents, and other representatives from each academic and administrative unit; and thematic focus groups that included a spectrum of faculty, students, staff, and community members.

Open Houses

Within each phase of work, open houses provided opportunities for faculty, students, staff, alums, and community members to provide feedback. During the first phase of work, open houses were conducted virtually with both synchronous and asynchronous options available. As the process moved into preliminary and final recommendations, the consultant team leveraged a mixture of in-person and virtual open houses. In coordination with the MSU core team, the consultant team located in-person open houses in strategic locations over multiple days to engage as broad a range of constituents as possible.

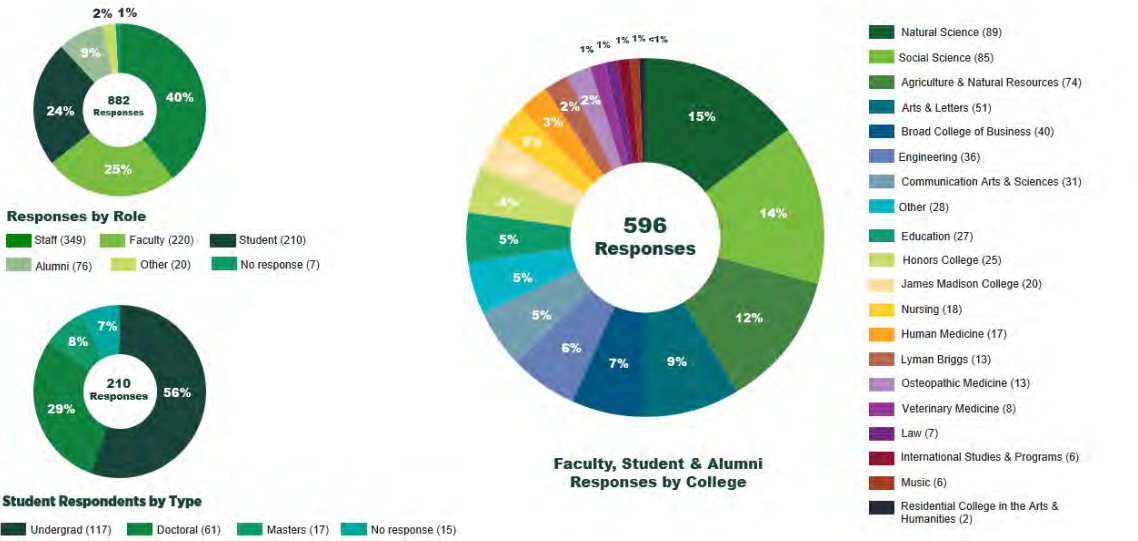


Virtual Input

As the planning process unfolded, the team provided a number of online formats for input to the planning process. As part of the project initiation, a digital survey allowed a broad base of constituents to identify opportunities and challenges within the university’s campuses and facilities. In addition to in-person town hall meetings, the team conducted virtual work sessions to solicit feedback from as broad a base of constituents as possible.

Leadership Engagement

Throughout the planning process, the consultant team presented findings to university leadership including the Board of Trustees, ensuring recommendations aligned with strategic priorities. These meetings took various forms, including listening sessions to understand board priorities, focused meetings to present analysis and preliminary recommendations, and a campus tour where the trustees affirmed the plan’s recommendations.



Fall 2026

Appendix C: Buildings by Age

Fiscal Year 2028
Budget Information

5-Year Capital Plan

Submitted By:

MICHIGAN STATE
UNIVERSITY

AGE OF BUILDINGS (IN YEARS)



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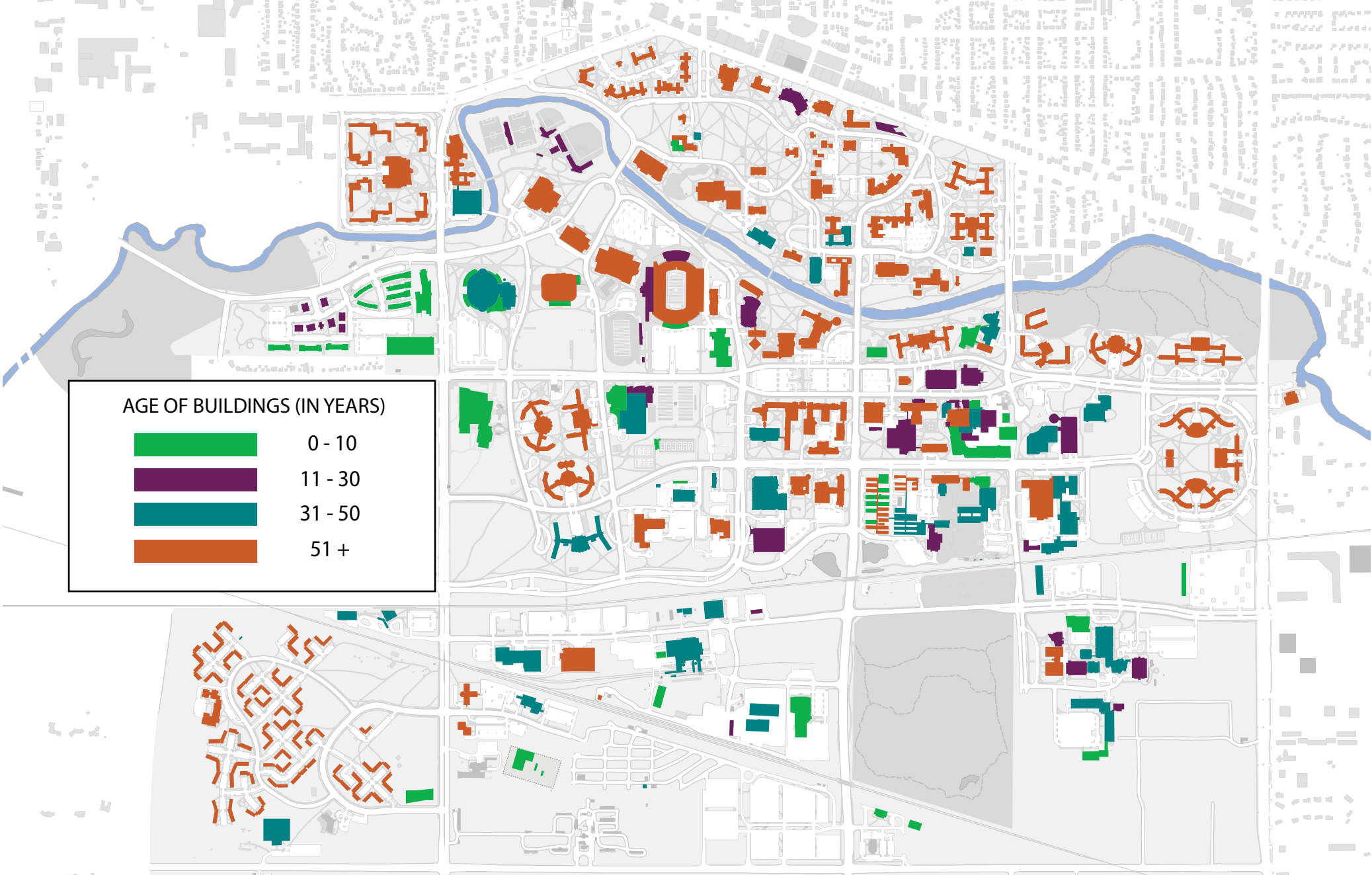
11 - 30



31 - 50



51 +



Appendix D: Student Enrollment – Fall Semester 2026

Fiscal Year 2028
Budget Information

5-Year Capital Plan

Submitted By:

MICHIGAN STATE UNIVERSITY

Enrollment Report

September 25, 2026

Fall 2026 enrollment totals 50,941 students. This fall, we welcomed 10,984 new undergraduate students, including first-time entering class students and transfers. Combined with returning students, the total undergraduate population stands at 40,871. Of those, 11,415 are students of color, representing 29.2% of domestic undergraduates and making this the most diverse undergraduate student body to date.

Total enrollment includes international students from 127 countries, domestic students from all 50 states, and Michigan students from all 83 counties. Students of color make up 29.6% of the total domestic class, making it MSU's most diverse student body.

New Undergraduates

- MSU received 62,539 applications for the entering class, lower than last year's 64,492, but with a higher yield.
- First time Honors College enrollment is 675 students, comprising 7.0 percent of the entering class.
- Domestic students from outside of Michigan total 1,936 and make up 20.0 percent of the entering class.
- New transfers total 1,327 students.
- Total entering class and new transfer enrollment, inclusive of summer admits, is 10,984 students, 77.8 percent of which are from Michigan.

Undergraduate and Graduate Students

- Total undergraduate enrollment is 40,871 students, down from 41,415 last year.
- Females make up 52.0 percent of the total undergraduate enrollment.
- There are 1,608 new degree-seeking graduate students at the master's and doctoral levels.
- New graduate professional enrollment totals 758 students.
- Total graduate enrollment, including graduate professional students, is 10,070 students.

University

- Total university enrollment for students of color is 13,970 students and accounts for 29.6 percent of the domestic student total. This is MSU's most diverse student body to date.
- The enrollment mix between undergraduate, graduate, and graduate professional students is 80.2 percent, 14.1 percent, and 5.7 percent, respectively.

The attachment provides detailed enrollment statistics.

Fall Semester 2026 Enrollment Report



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| 3. | Total University Enrollment Trend | 12. | New Graduate Enrollment |
| 4. | First Time Undergraduate Apps, Admits and Enrollments | 13. | New Graduate Professional Enrollment |
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Preface

- This report provides historical enrollment related data for the latest term.
- Official enrollment counts for the Fall semester are taken at the quarter of the term.
- Residency in this report is by citizenship and geographic origin at the time of admission.
- MSU and the MSU College of Law fully integrated as of Fall 2020[^]. Numbers in this report for terms prior to Fall 2020 were adjusted to reflect historical equivalents.

[^] Note: See <https://msutoday.msu.edu/news/2020/college-of-law-completes-full-integration>.

Total University Enrollment Trend

Term	MSU
Fall 2016	51,195
Fall 2017	50,871
Fall 2018	51,127
Fall 2019	50,578
Fall 2020*	49,695
Fall 2021	49,659
Fall 2022	50,023
Fall 2023	51,316
Fall 2024	52,089
Fall 2025	51,838
Fall 2026	50,941

First Time Undergraduate Apps, Admits and Enrollments

Type	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Applications**	37,480	36,143	33,129	44,321	45,426	50,629	55,525	58,879	62,138	64,492	62,539
Admits	24,641	25,860	25,733	31,522	34,663	42,150	47,034	49,414	52,690	52,410	53,851
Enrollments***	7,911	8,066	8,395	8,527	8,192	9,028	9,620	9,335	9,625	9,335	9,639
Entering Class****	7,950	8,108	8,442	8,570	8,228	9,065	9,676	9,371	9,652	9,355	9,657
Admit Ratio	65.7%	71.5%	77.7%	71.1%	76.3%	83.3%	84.7%	83.9%	84.8%	81.3%	86.1%
Yield	32.1%	31.2%	32.6%	27.1%	23.6%	21.4%	20.5%	18.9%	18.3%	17.8%	17.9%

** Note: Applications beginning in 2019 reflect first time use of the Common App (see <https://www.commonapp.org>).

*** Note: Enrollments are First Time in the Fall semester.

****Note: Entering Class are First Time in the Fall semester plus those that began in the preceding Summer session.

Honors College Enrollment

Degree-seeking Undergraduates***

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
New Honors	667	641	724	678	606	678	815	624	626	609	675
% of Entering Class	8.4%	7.9%	8.6%	7.9%	7.4%	7.5%	8.4%	6.7%	6.5%	6.5%	7.0%
Total Honors	3,686	3,757	4,002	3,947	4,230	4,363	4,458	4,700	4,369	4,252	4,041
% of Undergraduate	9.4%	9.6%	10.2%	10.1%	11.0%	11.5%	11.5%	11.8%	10.6%	10.3%	9.9%
New Academic Scholars**	186	94	148	176	159	147	152	182	165	191	168
% of Entering Class	2.3%	1.2%	1.8%	2.1%	1.9%	1.6%	1.6%	1.9%	1.7%	2.0%	1.7%
Entering Class	7,950	8,108	8,442	8,570	8,228	9,065	9,676	9,371	9,652	9,355	9,657
Undergraduate	39,085	38,996	39,423	39,176	38,491	38,090	38,700	39,904	41,234	41,415	40,871

** Note: The criteria for inclusion in the Academic Scholars Program was changed in 2017 resulting in a short-term decrease in the number of new members.

*** Note: Data includes only degree-seeking Bachelor's students.

Entering Class** by Race/Ethnicity

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Hispanic/Latinx (of any race)	341	399	480	515	525	600	600	656	756	777	784
Two or more races	266	252	276	317	324	326	478	427	466	467	507
African American/Black	619	634	699	610	601	571	549	612	726	676	795
Asian	451	451	560	608	685	810	826	810	756	761	738
Hawaiian/Pacific Islander	7	4	3	3	3	7	4	6	10	9	3
American Indian/Alaska Native	16	11	14	14	17	14	29	26	30	34	47
Total Students of color	1,700	1,751	2,032	2,067	2,155	2,328	2,486	2,537	2,744	2,724	2,874
Other/Unknown/Blank	40	32	41	170	175	368	138	98	139	172	153
White	5,130	5,344	5,655	5,677	5,524	5,945	6,350	6,182	6,386	6,058	6,253
Domestic Total	6,870	7,127	7,728	7,914	7,854	8,641	8,974	8,817	9,269	8,954	9,280
International	1,080	981	714	656	374	424	702	554	383	401	377
Total	7,950	8,108	8,442	8,570	8,228	9,065	9,676	9,371	9,652	9,355	9,657
PERCENT BY DOMESTIC											
Total Students of Color	24.7%	24.6%	26.3%	26.1%	27.4%	26.9%	27.7%	28.8%	29.6%	30.4%	31.0%
Other/Unknown/Blank	0.6%	0.4%	0.5%	2.1%	2.2%	4.3%	1.5%	1.1%	1.5%	1.9%	1.6%
White	74.7%	75.0%	73.2%	71.7%	70.3%	68.8%	70.8%	70.1%	68.9%	67.7%	67.4%
PERCENT BY TOTAL											
Total Students of Color	21.4%	21.6%	24.1%	24.1%	26.2%	25.7%	25.7%	27.1%	28.4%	29.1%	29.8%
Other/Unknown/Blank	0.5%	0.4%	0.5%	2.0%	2.1%	4.1%	1.4%	1.0%	1.4%	1.8%	1.6%
White	64.5%	65.9%	67.0%	66.2%	67.1%	65.6%	65.6%	66.0%	66.2%	64.8%	64.8%
International	13.6%	12.1%	8.5%	7.7%	4.5%	4.7%	7.3%	5.9%	4.0%	4.3%	3.9%

** Note: Entering Class are First Time in the Fall semester plus those that began in the preceding Summer session.

Entering Class** Enrollment

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Female	4,179	4,195	4,415	4,428	4,453	4,852	5,036	4,874	5,196	4,962	5,147
% of Total	52.6%	51.7%	52.3%	51.7%	54.1%	53.5%	52.0%	52.0%	53.8%	53.0%	53.3%
Michigan	5,526	5,859	6,508	6,435	6,528	6,952	6,782	7,069	7,361	7,189	7,344
% of Total	69.5%	72.3%	77.1%	75.1%	79.3%	76.7%	70.1%	75.4%	76.3%	76.8%	76.0%
U.S. Non-Mich	1,344	1,268	1,220	1,479	1,326	1,689	2,192	1,748	1,908	1,765	1,936
% of Total	16.9%	15.6%	14.5%	17.3%	16.1%	18.6%	22.7%	18.7%	19.8%	18.9%	20.0%
International	1,080	981	714	656	374	424	702	554	383	401	377
% of Total	13.6%	12.1%	8.5%	7.7%	4.5%	4.7%	7.3%	5.9%	4.0%	4.3%	3.9%
Total	7,950	8,108	8,442	8,570	8,228	9,065	9,676	9,371	9,652	9,355	9,657

** Note: "Entering Class" is first-time degree-seeking undergraduates in the Fall semester plus those that began in the preceding Summer session.

New Transfer** Enrollment

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Female	801	821	766	597	632	634	714	737	666	692	686
% of Total	48.8%	49.2%	48.2%	47.2%	50.4%	49.7%	51.8%	47.7%	50.2%	50.7%	51.7%
Michigan	1,509	1,505	1,480	1,161	1,165	1,152	1,253	1,447	1,209	1,241	1,197
% of Total	92.0%	90.2%	93.1%	91.7%	93.0%	90.3%	90.9%	93.6%	91.2%	90.9%	90.2%
U.S. Non-Mich	70	67	81	78	62	107	99	72	90	103	104
% of Total	4.3%	4.0%	5.1%	6.2%	4.9%	8.4%	7.2%	4.7%	6.8%	7.5%	7.8%
International	61	97	29	27	26	17	26	27	27	21	26
% of Total	3.7%	5.8%	1.8%	2.1%	2.1%	1.3%	1.9%	1.7%	2.0%	1.5%	2.0%
Total	1,640	1,669	1,590	1,266	1,253	1,276	1,378	1,546	1,326	1,365	1,327

** Note: "New Transfer" is new degree-seeking undergraduate transfer students and includes Fall semester plus those that began in the preceding Summer session.

New Undergraduate** Enrollment

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Female	4,980	5,016	5,131	5,025	5,085	5,486	5,750	5,611	5,862	5,654	5,833
% of Total	51.9%	51.3%	51.1%	51.1%	53.6%	53.1%	52.0%	51.4%	53.4%	52.7%	53.1%
Michigan	7,035	7,364	7,988	7,596	7,693	8,104	8,035	8,516	8,570	8,430	8,541
% of Total	73.4%	75.3%	79.6%	77.2%	81.1%	78.4%	72.7%	78.0%	78.1%	78.6%	77.8%
U.S. Non-Mich	1,414	1,335	1,301	1,557	1,388	1,796	2,291	1,820	1,998	1,868	2,040
% of Total	14.7%	13.7%	13.0%	15.8%	14.6%	17.4%	20.7%	16.7%	18.2%	17.4%	18.6%
International	1,141	1,078	743	683	400	441	728	581	410	422	403
% of Total	11.9%	11.0%	7.4%	6.9%	4.2%	4.3%	6.6%	5.3%	3.7%	3.9%	3.7%
Total	9,590	9,777	10,032	9,836	9,481	10,341	11,054	10,917	10,978	10,720	10,984

** Note: "New Undergraduate" includes the Entering Class and New Transfers (Summer and First-Time Fall).

Undergraduate Enrollment by Race/Ethnicity

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Hispanic/Latinx (of any race)	1,629	1,704	1,888	2,009	2,166	2,352	2,358	2,523	2,766	2,987	3,146
Two or more races	1,155	1,203	1,268	1,302	1,393	1,417	1,593	1,756	1,826	1,967	1,996
African American/Black	2,724	2,841	2,930	2,905	2,947	2,802	2,590	2,633	2,730	2,822	3,027
Asian	1,946	2,040	2,237	2,386	2,577	2,818	3,044	3,239	3,260	3,241	3,080
Hawaiian/Pacific Islander	36	32	32	27	19	23	26	25	29	29	26
American Indian/Alaska Native	88	75	71	71	75	67	93	109	112	123	140
Total Students of color	7,578	7,895	8,426	8,700	9,177	9,479	9,704	10,285	10,723	11,169	11,415
Other/Unknown/Blank	330	284	266	373	479	797	857	819	760	599	589
White	26,169	26,201	26,714	26,502	26,179	26,078	26,300	27,082	27,569	27,648	27,112
Domestic Total	34,077	34,380	35,406	35,575	35,835	36,354	36,861	38,186	39,052	39,416	39,116
International	5,008	4,616	4,017	3,601	2,656	2,220	2,340	2,297	2,182	1,999	1,755
Total	39,085	38,996	39,423	39,176	38,491	38,574	39,201	40,483	41,234	41,415	40,871
PERCENT BY DOMESTIC											
Total Students of Color	22.2%	23.0%	23.8%	24.5%	25.6%	26.1%	26.3%	26.9%	27.5%	28.3%	29.2%
Other/Unknown/Blank	1.0%	0.8%	0.8%	1.0%	1.3%	2.2%	2.3%	2.1%	1.9%	1.5%	1.5%
White	76.8%	76.2%	75.5%	74.5%	73.1%	71.7%	71.3%	70.9%	70.6%	70.1%	69.3%
PERCENT BY TOTAL											
Total Students of Color	19.4%	20.2%	21.4%	22.2%	23.8%	24.6%	24.8%	25.4%	26.0%	27.0%	27.9%
Other/Unknown/Blank	0.8%	0.7%	0.7%	1.0%	1.2%	2.1%	2.2%	2.0%	1.8%	1.4%	1.4%
White	67.0%	67.2%	67.8%	67.6%	68.0%	67.6%	67.1%	66.9%	66.9%	66.8%	66.3%
International	12.8%	11.8%	10.2%	9.2%	6.9%	5.8%	6.0%	5.7%	5.3%	4.8%	4.3%

Undergraduate Enrollment

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Female	19,778	19,704	19,985	19,824	19,760	19,906	20,257	20,794	21,313	21,325	21,244
% of Total	50.6%	50.5%	50.7%	50.6%	51.3%	51.6%	51.7%	51.4%	51.7%	51.5%	52.0%
Michigan	29,509	29,546	30,521	30,464	30,799	30,786	30,491	31,724	32,263	32,479	32,183
% of Total	75.5%	75.8%	77.4%	77.8%	80.0%	79.8%	77.8%	78.4%	78.2%	78.4%	78.7%
U.S. Non-Mich	4,568	4,834	4,885	5,111	5,036	5,568	6,370	6,462	6,789	6,937	6,933
% of Total	11.7%	12.4%	12.4%	13.0%	13.1%	14.4%	16.2%	16.0%	16.5%	16.7%	17.0%
International	5,008	4,616	4,017	3,601	2,656	2,220	2,340	2,297	2,182	1,999	1,755
% of Total	12.8%	11.8%	10.2%	9.2%	6.9%	5.8%	6.0%	5.7%	5.3%	4.8%	4.3%
Total	39,085	38,996	39,423	39,176	38,491	38,574	39,201	40,483	41,234	41,415	40,871

New Graduate** Enrollment

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Female	976	1,005	954	1,010	1,019	1,017	984	991	1,108	960	901
% of Total	55.3%	54.2%	56.1%	54.7%	56.5%	55.4%	55.0%	53.7%	57.9%	54.7%	56.0%
Michigan	748	772	705	846	919	879	851	845	886	857	868
% of Total	42.4%	41.7%	41.4%	45.8%	51.0%	47.9%	47.6%	45.8%	46.3%	48.9%	54.0%
U.S. Non-Mich	550	603	582	581	607	551	487	497	529	488	457
% of Total	31.1%	32.5%	34.2%	31.4%	33.7%	30.0%	27.2%	27.0%	27.6%	27.8%	28.4%
International	468	478	414	421	277	406	451	502	499	409	283
% of Total	26.5%	25.8%	24.3%	22.8%	15.4%	22.1%	25.2%	27.2%	26.1%	23.3%	17.6%
Total	1,766	1,853	1,701	1,848	1,803	1,836	1,789	1,844	1,914	1,754	1,608

** Note: Data includes only new degree-seeking Master's and Doctoral students in the Fall semester.

New Graduate Professional** Enrollment

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Female	470	479	472	486	447	498	469	471	474	453	473
% of Total	53.5%	56.0%	57.6%	57.5%	56.3%	59.1%	60.7%	58.7%	64.5%	61.0%	62.4%
Michigan	627	600	591	613	590	537	521	519	507	491	513
% of Total	71.3%	70.1%	72.1%	72.5%	74.3%	63.8%	67.4%	64.7%	69.0%	66.1%	67.7%
U.S. Non-Mich	214	217	198	211	188	278	222	250	200	230	217
% of Total	24.3%	25.4%	24.1%	25.0%	23.7%	33.0%	28.7%	31.2%	27.2%	31.0%	28.6%
International	38	39	31	21	16	27	30	33	28	22	28
% of Total	4.3%	4.6%	3.8%	2.5%	2.0%	3.2%	3.9%	4.1%	3.8%	3.0%	3.7%
Total	879	856	820	845	794	842	773	802	735	743	758

** Note: Data includes students in the Fall semester plus those that began in the preceding Summer session.

Graduate** Enrollment

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Female	4,970	4,836	4,780	4,670	4,610	4,560	4,431	4,408	4,485	4,264	4,040
% of Total	56.5%	56.0%	56.4%	57.0%	56.9%	57.3%	57.0%	56.7%	57.1%	56.8%	56.4%
Michigan	3,858	3,766	3,577	3,498	3,561	3,506	3,351	3,305	3,355	3,189	3,082
% of Total	43.9%	43.6%	42.2%	42.7%	43.9%	44.1%	43.1%	42.5%	42.7%	42.5%	43.0%
U.S. Non-Mich	2,730	2,710	2,743	2,712	2,759	2,652	2,474	2,397	2,373	2,201	2,157
% of Total	31.1%	31.4%	32.3%	33.1%	34.0%	33.3%	31.9%	30.8%	30.2%	29.3%	30.1%
International	2,203	2,156	2,161	1,984	1,787	1,798	1,942	2,078	2,126	2,122	1,929
% of Total	25.1%	25.0%	25.5%	24.2%	22.0%	22.6%	25.0%	26.7%	27.1%	28.2%	26.9%
Total	8,791	8,632	8,481	8,194	8,107	7,956	7,767	7,780	7,854	7,512	7,168

**Note: Data includes students at all graduate levels, degree and non-degree-seeking.

Graduate Enrollment by Level

Degree-Seeking Graduate Students**

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Master's	4,564	4,480	4,265	4,038	4,011	3,989	3,924	3,863	3,878	3,780	3,709
% of Total	58.1%	57.2%	55.3%	53.6%	53.8%	53.7%	53.8%	53.4%	52.9%	52.9%	54.5%
Doctoral	3,292	3,350	3,446	3,490	3,444	3,434	3,367	3,368	3,456	3,363	3,100
% of Total	41.9%	42.8%	44.7%	46.4%	46.2%	46.3%	46.2%	46.6%	47.1%	47.1%	45.5%
Total	7,856	7,830	7,711	7,528	7,455	7,423	7,291	7,231	7,334	7,143	6,809

** Note: Data includes only degree-seeking Master's and Doctoral students.

Graduate Professional Enrollment

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Female	1,728	1,741	1,774	1,811	1,775	1,827	1,794	1,819	1,852	1,739	1,815
% of Total	52.1%	53.7%	55.0%	56.5%	57.3%	58.4%	58.7%	59.6%	61.7%	59.7%	62.5%
Michigan	2,460	2,364	2,356	2,360	2,300	2,231	2,134	2,077	2,028	1,958	1,979
% of Total	74.1%	72.9%	73.1%	73.6%	74.3%	71.3%	69.9%	68.0%	67.6%	67.3%	68.2%
U.S. Non-Mich	709	729	727	728	700	810	832	873	862	848	822
% of Total	21.4%	22.5%	22.6%	22.7%	22.6%	25.9%	27.2%	28.6%	28.7%	29.1%	28.3%
International	150	150	140	120	97	88	89	103	111	105	101
% of Total	4.5%	4.6%	4.3%	3.7%	3.1%	2.8%	2.9%	3.4%	3.7%	3.6%	3.5%
Total	3,319	3,243	3,223	3,208	3,097	3,129	3,055	3,053	3,001	2,911	2,902

Total Enrollment by Race/Ethnicity

Group	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Hispanic/Latinx (of any race)	2,117	2,216	2,432	2,564	2,783	2,985	3,061	3,240	3,477	3,678	3,789
Two or more races	1,384	1,455	1,514	1,561	1,662	1,682	1,935	2,051	2,158	2,292	2,378
African American/Black	3,397	3,468	3,548	3,527	3,572	3,438	3,228	3,261	3,364	3,445	3,614
Asian	2,517	2,607	2,855	3,020	3,244	3,538	3,781	4,002	4,087	4,111	3,987
Hawaiian/Pacific Islander	58	55	52	42	28	28	30	30	32	30	29
American Indian/Alaska Native	136	123	116	125	125	113	130	144	144	151	173
Total Students of color	9,609	9,924	10,517	10,839	11,414	11,784	12,165	12,728	13,262	13,707	13,970
Other/Unknown/Blank	626	587	551	620	690	1,010	1,036	1,044	992	836	895
White	33,599	33,438	33,741	33,414	33,051	32,759	32,451	33,066	33,416	33,069	32,291
Domestic Total	43,834	43,949	44,809	44,873	45,155	45,553	45,652	46,838	47,670	47,612	47,156
International	7,361	6,922	6,318	5,705	4,540	4,106	4,371	4,478	4,419	4,226	3,785
Total	51,195	50,871	51,127	50,578	49,695	49,659	50,023	51,316	52,089	51,838	50,941
PERCENT BY DOMESTIC											
Total Students of Color	21.9%	22.6%	23.5%	24.2%	25.3%	25.9%	26.6%	27.2%	27.8%	28.8%	29.6%
Other/Unknown/Blank	1.4%	1.3%	1.2%	1.4%	1.5%	2.2%	2.3%	2.2%	2.1%	1.8%	1.9%
White	76.7%	76.1%	75.3%	74.5%	73.2%	71.9%	71.1%	70.6%	70.1%	69.5%	68.5%
PERCENT BY TOTAL											
Total Students of Color	18.8%	19.5%	20.6%	21.4%	23.0%	23.7%	24.3%	24.8%	25.5%	26.4%	27.4%
Other/Unknown/Blank	1.2%	1.2%	1.1%	1.2%	1.4%	2.0%	2.1%	2.0%	1.9%	1.6%	1.8%
White	65.6%	65.7%	66.0%	66.1%	66.5%	66.0%	64.9%	64.4%	64.2%	63.8%	63.4%
International	14.4%	13.6%	12.4%	11.3%	9.1%	8.3%	8.7%	8.7%	8.5%	8.2%	7.4%

Enrollment by Student Level

Level	2016	2017	2018	2019	2020*	2021	2022	2023	2024	2025	2026
Undergraduate	39,085	38,996	39,423	39,176	38,491	38,574	39,201	40,483	41,234	41,415	40,871
% of Total	76.3%	76.7%	77.1%	77.5%	77.5%	77.7%	78.4%	78.9%	79.2%	79.9%	80.2%
Graduate	8,791	8,632	8,481	8,194	8,107	7,956	7,767	7,780	7,854	7,512	7,168
% of Total	17.2%	17.0%	16.6%	16.2%	16.3%	16.0%	15.5%	15.2%	15.1%	14.5%	14.1%
Graduate Professional	3,319	3,243	3,223	3,208	3,097	3,129	3,055	3,053	3,001	2,911	2,902
% of Total	6.5%	6.4%	6.3%	6.3%	6.2%	6.3%	6.1%	5.9%	5.8%	5.6%	5.7%
Total	51,195	50,871	51,127	50,578	49,695	49,659	50,023	51,316	52,089	51,838	50,941

Undergraduate Enrollment, Faculty and Staff Count by Degree-Granting College

College	Undergraduate Enrollment Headcount Fall 2026	Faculty FTE 2025	Administration Staff FTE 2025
Agriculture & Natural Resources	3419	315.7	18
Arts and Letters	1298	305	22
Broad College of Business	4185	111.7	18
Communication Arts and Sciences	3976	88.4	12
Education	2589	152.6	11
Engineering	5417	202.3	16
James Madison	975	41.2	4
Lyman Briggs	2014	27	3
Music	302	68.6	3
Natural Science	5195	369.9	22
Nursing	1226	57.8	7.1
Residential College in Arts & Humanities	81	13	3
Social Science	6333	351.8	28
Veterinary Medicine	269	124.3	11

*Note: this page is an addendum to published 2026 Enrollment Report.

Fall 2026

Appendix E: Facility Condition Assessment

Fiscal Year 2028
Budget Information

5-Year Capital Plan

Submitted By:

MICHIGAN STATE
UNIVERSITY

MICHIGAN STATE UNIVERSITY

Facility Condition Assessment

21-Sep-2026

5-YEAR RENEWAL NEEDS BY ASSET AND YEAR

The university maintains and continually updates information on campus buildings, including size, use, and capital renewal needs. Where available, deferred renewal records include specific facility needs and estimated project costs. Because facility conditions, project scopes, and costs evolve over time, this information should be used as a portfolio-level planning tool rather than as a comprehensive statement of need or basis for project cost estimating.

					NONRECURRING NEEDS			LIFECYCLE RENEWAL NEEDS						5-YR TOTAL
ASSET CODE	ASSET NAME	TYPE	BUILT	GSF	HIGH	MEDIUM	LOW	DEFERRED	2028	2029	2030	2031	2032	
0002	BERKEY HALL	Classroom / Academic	1947	152,169	\$0	\$525,313	\$5,333,370	\$26,090,647	\$389,890	\$0	\$505,954	\$2,207,816	\$8,842	\$35,061,831
0003	OLIN MEMORIAL HEALTH CENTER	Medical / Clinic	1939	105,750	\$0	\$1,397,357	\$10,417,893	\$17,979,452	\$249,378	\$1,588,652	\$219,523	\$57,745	\$451,056	\$32,361,056
0005	HUMAN ECOLOGY	Classroom / Academic	1924	78,459	\$65	\$329,465	\$1,739,415	\$16,956,924	\$361,297	\$0	\$644,799	\$19,796	\$32,040	\$20,083,801
0006	UNION BUILDING	Student Union	1924	208,531	\$0	\$453,392	\$4,055,840	\$37,276,804	\$584,149	\$0	\$584,362	\$4,516,165	\$48,665	\$47,519,376
0008	WILLS HOUSE	Office / Administrative	1927	7,878	\$0	\$134,271	\$572,756	\$283,536	\$2,854	\$99,602	\$84,047	\$0	\$0	\$1,177,068
0009	COWLES HOUSE	Residential / Sgl. Family	1857	16,876	\$30	\$115,633	\$248,674	\$536,481	\$3,680	\$4,083	\$0	\$3,680	\$7,272	\$919,533
0011	MUSIC BUILDING	Classroom / Academic	1940	99,687	\$0	\$539,209	\$465,958	\$11,336,201	\$0	\$44,996	\$72,973	\$2,389,255	\$1,379,648	\$16,228,240
0013	MUSEUM	Office / Administrative	1922	54,998	\$0	\$325,882	\$5,640,856	\$7,524,098	\$41,553	\$613,528	\$0	\$20,724	\$205,191	\$14,371,833
0014	LINTON HALL	Office / Administrative	1881	39,839	\$0	\$253,860	\$4,726,226	\$5,607,023	\$0	\$53,052	\$118,099	\$105,638	\$0	\$10,863,899
0015	EUSTACE-COLE HALL	Office / Administrative	1888	11,432	\$0	\$28,419	\$127,404	\$1,633,804	\$28,606	\$0	\$26,308	\$0	\$0	\$1,844,541
0016	MARSHALL-ADAMS HALL	Office / Administrative	1902	20,189	\$0	\$33,668	\$367,017	\$1,302,062	\$47,878	\$69,291	\$573,445	\$0	\$7,470	\$2,400,831
0017	OLD BOTANY	Classroom / Academic	1892	14,051	\$0	\$676,558	\$1,164,819	\$993,734	\$0	\$80,357	\$27,890	\$70,110	\$453,586	\$3,467,053
0019	CHITTENDEN HALL	Classroom / Academic	1901	16,809	\$0	\$11,239	\$60,159	\$262,772	\$0	\$102,635	\$36,784	\$0	\$79,865	\$553,454
0020	COOK-SEEVERS HALL	Office / Administrative	1889	13,689	\$0	\$60,536	\$40,167	\$0	\$25,662	\$2,163	\$32,180	\$219,254	\$0	\$379,960
0021	MUSIC PRACTICE	Office / Administrative	1968	35,964	\$0	\$386,947	\$1,178,015	\$5,620,288	\$538,298	\$0	\$21,583	\$0	\$324,884	\$8,070,015
0022	MORRILL HALL OF AGRICULTURE	Office / Administrative	1909	133,979	\$13,418	\$1,023,326	\$8,002,359	\$12,731,196	\$254,093	\$192,630	\$1,174,062	\$369,712	\$0	\$23,760,797
0024	NATURAL SCIENCE	Laboratory	1948	193,313	\$0	\$903,089	\$8,325,079	\$78,318,620	\$211,722	\$89,146	\$3,861,652	\$4,128	\$15,137	\$91,728,573
0025	OLD HORTICULTURE	Classroom / Academic	1924	44,475	\$0	\$103,915	\$1,512,924	\$2,245,516	\$208,752	\$0	\$1,492,824	\$0	\$393,671	\$5,957,602
0027	PSYCHOLOGY	Classroom / Academic	1949	113,316	\$0	\$340,090	\$2,403,613	\$24,177,690	\$723,812	\$185,722	\$2,055,965	\$243,940	\$94,737	\$30,225,569
0028	GILTNER HALL	Laboratory	1913	253,356	\$5,620	\$7,561,247	\$33,720,726	\$50,751,171	\$886,061	\$21,976	\$1,045,632	\$2,019,328	\$263,776	\$96,275,537
0029	KEDZIE HALL	Office / Administrative	1927	159,383	\$8,334	\$701,391	\$14,080,835	\$14,653,999	\$829,021	\$9,986,440	\$3,343,361	\$184,584	\$845,659	\$44,633,624
0030	ALUMNI CHAPEL	Religious Facility	1952	8,678	\$0	\$253,569	\$721,318	\$1,284,995	\$0	\$0	\$85,799	\$0	\$6,135	\$2,351,816
0031	AUDITORIUM	Theater / Auditorium	1940	161,113	\$0	\$890,675	\$912,195	\$24,704,946	\$0	\$85,968	\$385,303	\$1,094,222	\$0	\$28,073,309
0035	COMPUTER CENTER	Classroom / Academic	1948	78,933	\$0	\$342,624	\$2,370,407	\$21,705,039	\$0	\$76,759	\$1,032,079	\$215,719	\$18,062	\$25,760,690
0047	OLDS HALL	Office / Administrative	1916	73,319	\$0	\$683,042	\$6,600,517	\$8,010,057	\$40,743	\$0	\$10,857	\$449,557	\$90,866	\$15,885,639
0049	LIBRARY	Library	1955	458,913	\$0	\$1,666,722	\$10,443,881	\$65,779,468	\$2,699,003	\$162,364	\$1,250,990	\$4,216,757	\$4,690,527	\$90,909,711
0051	IM CIRCLE	Gymnasium / Athletics	1916	163,483	\$9,859	\$756,528	\$4,287,463	\$31,301,287	\$1,704,162	\$9,676	\$0	\$268,724	\$236,219	\$38,573,918
0055	KELLOGG CENTER	Hotel / Conference	1951	232,100	\$2,602	\$760,569	\$750,752	\$24,194,815	\$253,546	\$2,286,734	\$321,990	\$165,559	\$15,629,108	\$44,365,676
0056	JENISON FIELD HOUSE	Gymnasium / Athletics	1940	207,803	\$0	\$286,433	\$2,441,629	\$13,995,790	\$672,277	\$184,328	\$283,637	\$1,254,433	\$47,219	\$19,165,745
0057	DEMONSTRATION HALL	Gymnasium / Athletics	1928	96,208	\$0	\$566,758	\$9,448,976	\$7,859,839	\$58,990	\$49,450	\$0	\$37,177	\$0	\$18,021,190
0058	SPARTAN STADIUM	Football Stadium	1923	488,295	\$2,195,937	\$16,910,522	\$1,263,462	\$53,494,660	\$374,107	\$1,450,763	\$6,510,898	\$3,822,958	\$512,082	\$86,535,390
0059	MUNN ICE ARENA	Gymnasium / Athletics	1974	123,191	\$0	\$164,095	\$8,733,937	\$18,795,340	\$11,008	\$24,189	\$406,939	\$0	\$1,237,385	\$29,372,892
0060	CENTRAL SERVICES	Warehouse/Storage/Utility	1948	70,035	\$7,493	\$1,299,169	\$1,409,226	\$6,241,604	\$318,011	\$74,656	\$0	\$0	\$126,868	\$9,477,027
0061	STEM TEACHING AND LEARNING FACILITY	Laboratory	1948	192,208	\$0	\$0	\$0	\$0	\$0	\$0	\$1,127,696	\$15,178	\$438,273	\$1,581,147
0067	HANNAH ADMINISTRATION	Office / Administrative	1968	170,216	\$0	\$853,463	\$4,125,767	\$46,266,297	\$5,799,211	\$2,172,777	\$57,646	\$2,361,791	\$1,449,087	\$63,086,040
0068	LINEN SERVICES	Shops / Trade	1968	72,412	\$0	\$94,031	\$250,146	\$8,747,231	\$1,031,984	\$37,541	\$210,218	\$0	\$11,788	\$10,382,940
0069	BRESLIN STUDENT EVENTS CENTER	Gymnasium / Athletics	1989	243,612	\$0	\$702,176	\$466,620	\$12,538,450	\$3,179,493	\$12,119,672	\$0	\$335,149	\$23,684	\$29,365,243
0069A	ALFRED BERKOWITZ BASKETBALL COMPLEX	Gymnasium / Athletics	2001	29,915	\$0	\$0	\$19,831	\$2,005,213	\$71,834	\$25,749	\$16,293	\$539,693	\$34,937	\$2,713,550
0069B	GILBERT PAVILION	Gymnasium / Athletics	2017	55,502	\$0	\$0	\$0	\$81,730	\$9,547	\$293,287	\$0	\$0	\$17,356	\$401,919
0077	DUFFY DAUGHERTY FOOTBALL BLDG - SAAC	Gymnasium / Athletics	1980	210,071	\$0	\$8,137	\$247,647	\$13,827,124	\$714,806	\$81,919	\$2,537,153	\$8,986	\$1,489,614	\$18,915,386
0078	WELLS HALL	Office / Administrative	1967	315,886	\$0	\$1,357,317	\$3,860,100	\$39,627,444	\$773,877	\$8,468,999	\$3,808,042	\$3,752,381	\$6,304,040	\$67,952,200
0079	BESSEY HALL	Classroom / Academic	1961	150,663	\$0	\$542,590	\$2,869,656	\$33,883,548	\$34,007	\$532,915	\$18,742	\$136,796	\$235,848	\$38,254,101
0080	BUSINESS COLLEGE COMPLEX - EPPLEY	Office / Administrative	1961	58,199	\$0	\$178,435	\$103,414	\$4,413,256	\$0	\$7,620	\$872,433	\$0	\$0	\$5,575,158
0080A	BUSINESS COLLEGE COMPLEX - ELI BROAD	Office / Administrative	1993	125,114	\$0	\$137,202	\$292,346	\$5,257,879	\$1,170,011	\$7,305	\$1,398,473	\$11,788	\$49,379	\$8,324,383
0080B	BUSINESS COLLEGE COMPLEX - GRAD PAVILION	Classroom / Academic	2019	104,593	\$0	\$0	\$157,686	\$1,352	\$0	\$0	\$3,218	\$964,613	\$0	\$1,126,869
0081	ENGINEERING	Laboratory	1962	433,899	\$0	\$632,217	\$11,379,772	\$66,839,528	\$226,380	\$5,683,544	\$2,599,237	\$1,556,572	\$319,620	\$89,236,868

0082	URBAN PLANNING LANDSCAPE ARCH-IMC	Classroom / Academic	1966	47,013	\$0	\$769,195	\$3,852,309	\$8,625,490	\$0	\$0	\$4,468	\$1,666	\$38,359	\$13,291,487
0083	MSU COLLEGE OF LAW	Classroom / Academic	1997	186,558	\$0	\$638,607	\$405,801	\$8,910,325	\$451	\$0	\$1,909,299	\$0	\$5,194,136	\$17,058,620
0084	COMMUNICATION ARTS	Classroom / Academic	1981	263,316	\$0	\$258,224	\$5,283,876	\$47,488,369	\$217,132	\$393,846	\$142,775	\$20,436,575	\$53,340	\$74,274,136
0085	WHARTON CENTER FOR PERFORMING ARTS	Theater / Auditorium	1982	187,505	\$0	\$521,186	\$570,300	\$28,034,387	\$0	\$1,079,995	\$71,781	\$64,810	\$7,890,967	\$38,233,425
0086	PLANT AND SOIL SCIENCE	Classroom / Academic	1986	364,678	\$0	\$88,098	\$185,859	\$42,386,980	\$181,463	\$2,373,421	\$4,837,115	\$42,858,266	\$0	\$92,911,203
0087	PUBLIC SAFETY	Police Station	1975	36,941	\$150	\$167,623	\$1,893,354	\$4,005,086	\$139,032	\$49,297	\$1,220,535	\$0	\$240,012	\$7,715,090
0088	UNIVERSITY SERVICES	Office / Administrative	1969	5,510	\$0	\$110,498	\$364,337	\$909,166	\$0	\$53,204	\$219,883	\$0	\$0	\$1,657,087
0089	OYER SPEECH AND HEARING CENTER	Office / Administrative	1968	19,896	\$0	\$242,742	\$534,640	\$3,392,103	\$140,145	\$16,346	\$662,797	\$25,613	\$110,855	\$5,125,239
0091	FARRALL HALL	Laboratory	1948	76,620	\$0	\$703,503	\$9,828,608	\$18,379,824	\$12,911	\$2,752	\$120,821	\$231,350	\$442,864	\$29,722,633
0128	1407 S HARRISON	Office / Administrative	1973	56,695	\$0	\$278,796	\$1,882,394	\$12,597,191	\$687,933	\$2,131,005	\$149,424	\$5,835	\$576,907	\$18,309,485
0131	FIRE STATION	Fire Station	1955	9,433	\$0	\$125,561	\$788,437	\$1,757,246	\$10,156	\$11,270	\$0	\$32,437	\$0	\$2,725,108
0132	ANTHONY HALL	Laboratory	1955	319,754	\$0	\$571,673	\$1,111,355	\$89,652,639	\$5,836,549	\$218,821	\$1,039,601	\$489,622	\$1,647,533	\$100,567,794
0133	ANGELL UNIVERSITY SERVICES	Office / Administrative	1988	82,546	\$0	\$50,792	\$352,751	\$6,045,670	\$681,276	\$0	\$0	\$15,922	\$0	\$7,146,411
0142	STUDENT SERVICES	Office / Administrative	1957	121,938	\$0	\$684,815	\$3,020,453	\$21,332,734	\$39,727	\$3,016,439	\$439,062	\$37,197	\$440,078	\$29,010,505
0144	ERICKSON HALL	Office / Administrative	1957	219,249	\$0	\$511,800	\$3,960,317	\$34,743,874	\$660,993	\$1,666	\$1,883,962	\$1,171,056	\$316,207	\$43,249,875
0150	KRESGE ART CENTER	Classroom / Academic	1958	96,980	\$0	\$443,364	\$2,436,163	\$14,039,533	\$1,830,293	\$0	\$296,491	\$24,892	\$0	\$19,070,734
0150A	KRESGE ART-SCULPTURE STUDIO	Shops / Trade	1966	7,695	\$0	\$66,051	\$220,843	\$687,516	\$0	\$1,609	\$27,636	\$0	\$0	\$1,003,655
0151	IM SPORTS WEST	Gymnasium / Athletics	1958	235,573	\$0	\$1,006,553	\$10,515,520	\$33,617,527	\$1,323,977	\$0	\$4,397	\$2,701,248	\$1,866,984	\$51,036,206
0154	MANLY MILES	Office / Administrative	1959	58,519	\$0	\$353,833	\$2,805,072	\$14,943,156	\$449,462	\$2,255,225	\$415,291	\$53,951	\$25,283	\$21,301,273
0158	LANDSCAPE SERVICES	Shops / Trade	1959	32,445	\$0	\$51,972	\$716,464	\$4,414,728	\$217,701	\$0	\$12,774	\$0	\$1,246	\$5,414,884
0160	BIOMEDICAL PHYSICAL SCIENCES	Laboratory	2001	377,230	\$0	\$0	\$1,065,495	\$26,187,080	\$2,213,232	\$1,666	\$0	\$790,591	\$95,898	\$30,353,962
0163	CHEMISTRY	Laboratory	1963	317,295	\$0	\$3,902,073	\$9,012,742	\$126,468,897	\$1,401,851	\$29,550	\$1,057,700	\$615,328	\$1,451,766	\$143,939,906
0164	FACILITY FOR RARE ISOTOPE BEAMS (FRIB)	Laboratory	1963	594,746	\$575,431	\$1,257,266	\$1,257,376	\$44,809,753	\$5,691,330	\$5,374,953	\$798,051	\$6,950,372	\$6,161,663	\$72,876,194
0165	ABRAMS PLANETARIUM	Laboratory	1963	17,465	\$0	\$114,914	\$703,115	\$6,447,674	\$25,613	\$0	\$11,088	\$5,532	\$0	\$7,307,935
0167	IPF	Shops / Trade	1963	95,249	\$0	\$385,161	\$2,025,837	\$8,825,019	\$247,431	\$176,747	\$1,118,556	\$391,822	\$644,279	\$13,814,851
0168	BIOCHEMISTRY	Laboratory	1964	157,744	\$0	\$1,950,590	\$6,399,680	\$51,467,025	\$109,350	\$32,483	\$22,575	\$3,297	\$0	\$59,985,000
0169	INTERNATIONAL CENTER	Office / Administrative	1964	133,524	\$0	\$303,070	\$1,703,384	\$20,719,574	\$1,432,559	\$103,083	\$317,098	\$1,180,208	\$5,950,964	\$31,709,940
0170	VETERINARY MEDICAL CENTER	Laboratory	1965	383,657	\$0	\$734,430	\$3,225,538	\$110,257,877	\$141,201	\$142,067	\$10,642,951	\$8,746,585	\$336,553	\$134,227,203
0170A	VETERINARY MEDICAL CENTER-EQUINE	Laboratory	1989	34,305	\$0	\$35,658	\$141,655	\$2,278,350	\$0	\$888,175	\$754,100	\$185,630	\$0	\$4,283,569
0170B	VETERINARY MEDICAL CENTER-PEGASUS	Laboratory	2005	8,818	\$0	\$0	\$32,496	\$770,800	\$254,132	\$0	\$510,079	\$5,807	\$30,582	\$1,603,895
0171	FOOD STORES	Food Service / Dining	1964	93,457	\$0	\$146,782	\$1,173,214	\$20,229,903	\$162,614	\$2,198,757	\$263,377	\$1,609,031	\$221,916	\$26,005,594
0175	IM SPORTS EAST	Gymnasium / Athletics	1988	75,237	\$0	\$124,869	\$773,882	\$2,900,253	\$1,097,978	\$285,624	\$0	\$86,674	\$3,121,509	\$8,390,788
0176	GEOGRAPHY	Classroom / Academic	1965	31,221	\$0	\$303,925	\$837,850	\$8,771,704	\$0	\$0	\$491,920	\$0	\$184,343	\$10,589,742
0177	PACKAGING	Classroom / Academic	1964	50,462	\$0	\$280,366	\$450,969	\$11,901,363	\$0	\$0	\$20,166	\$169,292	\$0	\$12,822,155
0178	PLANT BIOLOGY	Laboratory	1966	189,515	\$0	\$1,144,438	\$4,527,750	\$77,202,475	\$335,220	\$852,903	\$0	\$659,937	\$20,047,399	\$104,770,122
0179	FOOD SCIENCE	Laboratory	1966	120,101	\$0	\$1,141,227	\$4,364,550	\$32,014,809	\$1,405,527	\$1,499,992	\$0	\$39,578	\$325,296	\$40,790,980
0180	NATURAL RESOURCES	Classroom / Academic	1966	149,972	\$0	\$1,743,250	\$4,113,765	\$39,128,783	\$480,863	\$587,491	\$39,338	\$4,468	\$120,994	\$46,218,952
0181A	CENTER INTEGRATIVE PLANT SYS-LAB (CIPS)	Laboratory	1967	97,563	\$0	\$590,288	\$2,529,412	\$39,095,607	\$461,456	\$1,883,925	\$472,982	\$15,378	\$79,718	\$45,128,765
0182	BAKER HALL	Office / Administrative	1967	60,298	\$0	\$529,822	\$3,618,559	\$12,099,593	\$55,969	\$675,445	\$1,491,629	\$0	\$88,857	\$18,559,873
0183	LIFE SCIENCE	Laboratory	1971	228,471	\$0	\$3,198,843	\$626,504	\$84,323,629	\$0	\$94,155	\$613,597	\$12,004,086	\$1,632,757	\$102,493,571
0186	FOOD SAFETY TOXICOLOGY	Laboratory	1997	115,133	\$0	\$115,187	\$327,735	\$10,864,064	\$1,279,751	\$0	\$9,998	\$0	\$5,249,334	\$17,846,070
0194	SPARTAN VILLAGE COMMUNITY CENTER	Classroom / Academic	1962	45,698	\$0	\$293,406	\$1,109,930	\$8,328,067	\$13,272	\$199,714	\$304,353	\$13,272	\$78,349	\$10,340,364
0200	CLINICAL CENTER-CLINIC	Medical / Clinic	1976	214,661	\$0	\$558,846	\$5,975,646	\$51,354,171	\$162,196	\$504,660	\$218,088	\$50,014	\$38,967	\$58,862,589
0201	CLINICAL CENTER-OFFICE/LAB	Office / Administrative	1976	77,530	\$0	\$440,224	\$2,225,479	\$18,177,064	\$0	\$603,243	\$47,548	\$0	\$0	\$21,493,558
0202	CLINICAL CENTER-ANIMAL	Laboratory	1976	45,308	\$0	\$228,052	\$266,149	\$6,678,270	\$3,333	\$258,648	\$51,661	\$110,452	\$0	\$7,596,563
0203A	ENGINEERING RESEARCH COMPLEX	Laboratory	1986	128,050	\$0	\$168,148	\$4,798,680	\$36,132,594	\$81,159	\$22,344	\$793,755	\$354,224	\$1,302,404	\$43,653,309
0204	CENTRAL SCHOOL	School / K - 12	1916	24,239	\$0	\$123,803	\$250,509	\$2,396,418	\$0	\$77,231	\$237,997	\$0	\$549,247	\$3,635,206
0205	RENTAL STORAGE FACILITY B	Warehouse/Storage/Utility	1987	25,792	\$0	\$147,591	\$14,531	\$309,964	\$0	\$41,600	\$0	\$0	\$392,667	\$906,353
0206	ENG RESEARCH-JOLLY RD	Shops / Trade	1982	10,215	\$0	\$57,101	\$359,260	\$2,099,791	\$21,856	\$8,078	\$45,005	\$3,076	\$279,881	\$2,874,048
0206A	ENG RESEARCH - JOLLY RD CONCRETE LAB	Shops / Trade	2001	13,700	\$0	\$35,618	\$376,220	\$987,420	\$49,341	\$1,722	\$0	\$436,560	\$0	\$1,886,880
0208	TENNIS FACILITY	Gymnasium / Athletics	1985	67,091	\$0	\$36,939	\$7,045,433	\$911,313	\$402,825	\$125,429	\$73,122	\$0	\$350,840	\$8,945,901
0209	IPF STORAGE #1 (NORTH)	Warehouse/Storage/Utility	1993	36,110	\$0	\$21,561	\$26,867	\$171,354	\$194,555	\$0	\$357,706	\$0	\$0	\$772,042
0210	IPF STORAGE #2 (SOUTH)	Warehouse/Storage/Utility	1994	23,839	\$0	\$19,522	\$42,607	\$236,548	\$95,793	\$0	\$272,768	\$0	\$0	\$667,238
0211	UNIVERSITY RESEARCH CONTAINMENT	Laboratory	1993	89,201	\$0	\$0	\$251,166	\$7,840,345	\$1,403,824	\$20,815	\$729,007	\$99,180	\$0	\$10,344,336
0212	PAVILION AG LIVESTOCK	Gymnasium / Athletics	1996	204,594	\$0	\$4,394	\$304,848	\$8,415,083	\$33,032	\$211,674	\$1,651,664	\$4,501,479	\$0	\$15,122,173
0212A	PAVILION AG LIVESTOCK-HORSE BARN	Warehouse/Storage/Utility	2000	24,633	\$0	\$147,897	\$0	\$97,455	\$4,785	\$826	\$0	\$4,785	\$35,943	\$291,691
0213	CROP SCIENCE (AGRONOMY FARM) - FIELD LAB	Laboratory	1954	53,108	\$0	\$59,784	\$372,432	\$3,095,991	\$0	\$61,026	\$705,782	\$798,581	\$1,081,570	\$6,175,166
0214	RADIOLOGY	Office / Administrative	1998	64,773	\$0	\$61,939	\$178,329	\$3,015,599	\$356,963	\$307,118	\$632,886	\$148,906	\$475,063	\$5,176,803
0214A	RADIOLOGY GREENHOUSE	Warehouse/Storage/Utility	2006	1,499	\$0	\$2,738	\$0	\$22,435	\$0	\$0	\$0	\$0	\$0	\$25,173

0214B	RADIOLOGY STORAGE SHED	Warehouse/Storage/Utility	2000	198	\$0	\$0	\$0	\$1,459	\$0	\$0	\$0	\$0	\$0	\$1,459
0215	VETERINARY DIAGNOSTIC LABORATORY	Laboratory	2003	158,471	\$0	\$109,639	\$1,380,715	\$12,505,131	\$12,704,774	\$1,941,606	\$28,340	\$4,758	\$0	\$28,674,961
0217	SPARTAN CHILD DEVELOPMENT	School / K - 12	2002	16,076	\$0	\$0	\$127,018	\$1,105,836	\$411,478	\$0	\$0	\$0	\$676,940	\$2,321,273
0218	EXECUTIVE DEVELOPMENT	Office / Administrative	2001	98,257	\$0	\$344,602	\$196,070	\$7,815,215	\$131,263	\$50,985	\$0	\$1,272,958	\$0	\$9,811,093
0218X	AKERS GOLF - PRO SHOP - WEST	Retail	2010	4,500	\$0	\$0	\$0	\$86,960	\$31,255	\$0	\$369,005	\$0	\$11,874	\$499,093
0223	SURPLUS AND RECYCLING	Shops / Trade	2008	73,194	\$0	\$6,481	\$206,094	\$834,833	\$1,706,132	\$0	\$141,922	\$0	\$0	\$2,895,463
0224	DEMMER SPORTS EDUCATION	Shops / Trade	2009	25,776	\$0	\$2,602	\$71,201	\$339,011	\$0	\$404,104	\$40,573	\$70,578	\$0	\$928,069
0228	BROAD ART MUSEUM	Theater / Auditorium	2012	46,237	\$0	\$16,999	\$4,358	\$374,492	\$115,899	\$0	\$260,338	\$0	\$493,969	\$1,266,056
0233	BIO ENGINEERING	Laboratory	2015	131,197	\$0	\$0	\$0	\$1,506,414	\$0	\$211,340	\$121,879	\$228,161	\$192,526	\$2,260,319
0247	INTERDISCIPLINARY SCIENCE AND TECH	Laboratory	2019	166,808	\$0	\$4,495	\$12,695	\$0	\$0	\$978,673	\$11,933	\$786,215	\$0	\$1,794,011
0300	SNYDER PHILLIPS HALL	Residence Halls	1947	301,133	\$1,041,812	\$1,809,689	\$833,853	\$37,506,601	\$230,154	\$848,605	\$43,901	\$60,716	\$8,183,722	\$50,559,054
0302	MASON ABBOT HALL	Residence Halls	1938	189,167	\$1,048,637	\$4,342,185	\$928,838	\$16,235,686	\$661,196	\$439,350	\$498,743	\$26,948	\$4,417,704	\$28,599,287
0304	CAMPBELL HALL	Residence Halls	1939	81,143	\$0	\$2,341,399	\$1,572,057	\$11,797,193	\$257,481	\$421,769	\$2,127,948	\$23,537	\$621,260	\$19,162,644
0305	LANDON HALL	Residence Halls	1947	84,510	\$0	\$816,646	\$22,470	\$724,054	\$95,989	\$125,146	\$0	\$588,112	\$424,921	\$2,797,337
0306	YAKELEY GILCHRIST HALL	Residence Halls	1948	134,442	\$0	\$4,231,582	\$2,397,006	\$19,896,694	\$0	\$102,372	\$3,710,292	\$0	\$920,412	\$31,258,358
0308	WILLIAMS HALL	Residence Halls	1937	67,415	\$0	\$2,268,279	\$1,215,776	\$8,922,513	\$19,451	\$415,139	\$1,727,288	\$0	\$1,138,223	\$15,706,670
0309	MARY MAYO HALL	Residence Halls	1931	64,319	\$0	\$777,829	\$11,151	\$2,486,087	\$0	\$653,998	\$130,393	\$0	\$183,147	\$4,242,604
0310	BUTTERFIELD HALL	Residence Halls	1954	104,276	\$0	\$676,445	\$11,083	\$8,164,673	\$89,504	\$643,150	\$0	\$0	\$767,403	\$10,352,259
0311	RATHER HALL	Residence Halls	1954	117,409	\$0	\$436,023	\$15,607	\$8,342,084	\$0	\$1,435,884	\$817,392	\$0	\$1,388,296	\$12,435,286
0312	BRYAN HALL	Residence Halls	1954	117,837	\$0	\$472,436	\$20,494	\$6,189,711	\$587,093	\$0	\$800,213	\$0	\$3,992,712	\$12,062,660
0313	BRODY HALL	Food Service / Dining	1954	166,046	\$0	\$107,630	\$58,307	\$5,285,437	\$73,798	\$80,416	\$1,935,222	\$9,127	\$1,621,184	\$9,171,121
0314	EMMONS HALL	Residence Halls	1955	113,078	\$0	\$526,039	\$22,807	\$11,077,189	\$788,815	\$515,552	\$743,563	\$0	\$57,416	\$13,731,381
0315	BAILEY HALL	Residence Halls	1955	115,380	\$0	\$436,023	\$19,354	\$5,446,082	\$1,298,683	\$851,904	\$0	\$0	\$3,568,618	\$11,620,664
0316	ARMSTRONG HALL	Residence Halls	1955	118,115	\$0	\$473,965	\$22,000	\$2,496,795	\$1,345,421	\$658,808	\$822,050	\$0	\$1,453,907	\$7,272,946
0317	SHAW HALL	Residence Halls	1950	277,198	\$296,265	\$2,773,972	\$5,958,844	\$52,302,723	\$87,487	\$11,564,311	\$514,790	\$2,138,758	\$576,665	\$76,213,815
0319	VAN HOOSEN HALL	Residence Halls	1957	32,834	\$7,402	\$268,600	\$1,832,927	\$2,679,799	\$0	\$0	\$37,013	\$0	\$1,618,962	\$6,444,702
0320	OWEN GRADUATE HALL	Residence Halls	1961	292,899	\$72,292	\$4,169,621	\$11,043,853	\$49,132,454	\$2,972,831	\$1,885,473	\$480,379	\$0	\$1,250,287	\$71,007,189
0321	CASE HALL	Residence Halls	1961	302,508	\$0	\$1,191,754	\$12,977,108	\$57,998,118	\$60,548	\$0	\$2,302,551	\$22,476	\$3,473,611	\$78,026,167
0322	WILSON HALL	Residence Halls	1962	343,928	\$0	\$4,018,190	\$9,180,049	\$83,385,479	\$0	\$207,945	\$57,274	\$0	\$1,315,335	\$98,164,271
0323	WONDERS HALL	Residence Halls	1963	343,543	\$0	\$814,890	\$1,060,656	\$47,461,697	\$188,230	\$1,024,886	\$198,567	\$0	\$79,759	\$50,828,685
0324	MCDONEL HALL	Residence Halls	1963	348,498	\$5,631	\$3,771,919	\$14,011,698	\$70,708,965	\$2,983,313	\$660,617	\$142,724	\$0	\$575,490	\$92,860,357
0325	RHS SERVICES	Office / Administrative	1962	12,080	\$0	\$10,296	\$271,761	\$1,316,531	\$3,218	\$22,254	\$45,622	\$0	\$534,791	\$2,204,473
0326	AKERS HALL	Residence Halls	1964	385,797	\$0	\$2,304,588	\$13,521,342	\$69,877,567	\$19,123,096	\$853,626	\$4,527,627	\$170,767	\$1,219,004	\$111,597,616
0327	FEE HALL	Office / Administrative	1964	388,116	\$0	\$2,953,258	\$9,826,792	\$108,249,010	\$42,697	\$2,694,336	\$3,888,905	\$49,882	\$3,971,700	\$131,676,580
0328	CONRAD HALL	Office / Administrative	1964	23,096	\$0	\$118,923	\$590,752	\$3,553,336	\$958,353	\$13,937	\$10,408	\$0	\$199,159	\$5,444,867
0330	HOLMES HALL	Residence Halls	1965	399,755	\$0	\$3,855,985	\$20,740,235	\$85,354,220	\$420,935	\$22,615,269	\$4,472,408	\$1,544,459	\$47,296	\$139,050,808
0331	HUBBARD HALL	Residence Halls	1966	351,373	\$0	\$2,954,848	\$1,484,822	\$78,111,156	\$12,772	\$0	\$1,844,514	\$150,826	\$40,993	\$84,599,932
0332	HOLDEN HALL	Residence Halls	1967	357,199	\$0	\$4,338,558	\$1,616,729	\$78,655,934	\$60,066	\$221,027	\$103,652	\$0	\$4,063,932	\$89,059,900
0401A	AKERS GOLF-CART SHELTER-WEST	Shops / Trade	1979	3,379	\$0	\$0	\$25,897	\$184,333	\$0	\$14,826	\$16,638	\$0	\$20,097	\$261,791
0401B	AKERS GOLF-MAINTENANCE-EAST	Shops / Trade	1967	3,985	\$0	\$0	\$56,458	\$343,892	\$0	\$0	\$0	\$0	\$0	\$400,349
0401C	AKERS GOLF-MAINTENANCE-WEST	Shops / Trade	1956	4,812	\$0	\$0	\$279,858	\$547,388	\$0	\$0	\$118,047	\$0	\$0	\$945,293
0401E	AKERS GOLF-MANAGERS HSE-WEST	Residential / Sgl. Family	1957	2,630	\$0	\$121,852	\$24,411	\$351,271	\$0	\$0	\$0	\$0	\$4,125	\$501,660
0401J	AKERS GOLF-RESTROOM 1-EAST	Shops / Trade	1979	298	\$0	\$8,015	\$52,733	\$132,806	\$0	\$0	\$0	\$0	\$0	\$193,555
0401L	AKERS GOLF-SNACK BAR-WEST	Retail	1987	241	\$0	\$0	\$52,733	\$59,975	\$0	\$0	\$0	\$1,609	\$2,990	\$117,307
0401M	AKERS GOLF-SOIL STRG-EAST	Warehouse/Storage/Utility	1988	7,568	\$0	\$0	\$190,442	\$31,610	\$0	\$22,494	\$0	\$0	\$0	\$244,547
0401N	AKERS GOLF-STARTER-EAST	Warehouse/Storage/Utility	1989	61	\$0	\$0	\$0	\$1,996	\$0	\$1,418	\$0	\$0	\$0	\$3,414
0401Q	AKERS GOLF-SNACK BAR-EAST	Retail	1993	337	\$0	\$3,039	\$23,331	\$38,791	\$2,204	\$0	\$0	\$0	\$0	\$67,365
0401T	AKERS GOLF-STARTER 1-EAST	Retail	1996	4,259	\$0	\$139,341	\$1,217,412	\$343,712	\$0	\$0	\$45,570	\$65,938	\$45,646	\$1,857,619
0401U	AKERS GOLF-CART-WEST	Shops / Trade	2001	3,660	\$0	\$17,109	\$11,688	\$131,529	\$0	\$0	\$0	\$84,968	\$0	\$245,294
0401V	AKERS GOLF-DRIVING RANGE ENCL	Warehouse/Storage/Utility	2009	6,693	\$0	\$598	\$0	\$186,845	\$0	\$165,148	\$0	\$0	\$0	\$352,591
0401W	AKERS GOLF-EQUIPMENT STRG-WEST	Warehouse/Storage/Utility	2011	2,579	\$0	\$19,145	\$28,171	\$41,036	\$0	\$0	\$0	\$46,772	\$0	\$135,125
0401X	AKERS GOLF-CART SHELTER-WEST	Warehouse/Storage/Utility	1995	164	\$0	\$0	\$0	\$6,343	\$0	\$0	\$0	\$0	\$0	\$6,343
0401Y	AKERS GOLF-INTERCOLLEGIATE GOLF	Gymnasium / Athletics	2015	15,533	\$0	\$0	\$0	\$252,948	\$0	\$5,696	\$0	\$0	\$0	\$258,645
0401Z	AKERS GOLF-RESTROOM 2-EAST	Shops / Trade	2014	203	\$0	\$199	\$5,078	\$15,274	\$0	\$0	\$0	\$0	\$0	\$20,551
0407A	HORTICULTURE RES-HOUSE/OFFICE	Office / Administrative	1966	3,002	\$0	\$117,714	\$604,176	\$707,193	\$0	\$0	\$8,544	\$9,481	\$0	\$1,447,109
0407B	HORTICULTURE RES-GARAGE	Shops / Trade	1966	6,592	\$0	\$101,986	\$1,006,947	\$2,611,348	\$0	\$0	\$8,544	\$19,318	\$0	\$3,748,143
0407C	HORTICULTURE RES-EQUIP STRG	Warehouse/Storage/Utility	1966	6,156	\$0	\$26,104	\$136,316	\$795,092	\$0	\$0	\$3,987	\$4,425	\$0	\$965,924
0407F	HORTICULTURE RES-WINERY	Warehouse/Storage/Utility	1989	4,275	\$0	\$75,922	\$638,555	\$606,525	\$19,000	\$200,090	\$0	\$0	\$0	\$1,540,092
0407G	HORTICULTURE RES-LATH HOUSE	Warehouse/Storage/Utility	1988	1,200	\$0	\$0	\$5,078	\$46,684	\$0	\$0	\$0	\$0	\$0	\$51,762

0407H	HORTICULTURE RES-PEST STOR AND RES	Warehouse/Storage/Utility	1997	3,434	\$0	\$34,395	\$314,283	\$718,558	\$0	\$0	\$0	\$0	\$75,024	\$1,142,259
0407I	HORTICULTURE RES-GREENHOUSE	Shops / Trade	1997	30,167	\$0	\$0	\$20,312	\$235,967	\$0	\$0	\$0	\$0	\$99,530	\$355,809
0407L	HORTICULTURE RES-IRRIGATION WELL	Shops / Trade	2018	85	\$0	\$0	\$2,539	\$0	\$0	\$0	\$0	\$0	\$0	\$2,539
0440B	SWINE RESEARCH-GARAGE	Warehouse/Storage/Utility	1955	362	\$0	\$0	\$16,979	\$45,539	\$0	\$0	\$9,595	\$0	\$0	\$72,113
0440L	SWINE RESEARCH-HSE 1	Residential / Sgl. Family	1984	677	\$0	\$88,912	\$79,002	\$157,467	\$0	\$41,432	\$0	\$0	\$7,832	\$374,645
0442E	CROP SCIENCE (AGRONOMY FARM) - STORAGE 1	Warehouse/Storage/Utility	1985	16,266	\$0	\$10,409	\$0	\$271,054	\$0	\$3,160	\$73,431	\$0	\$0	\$358,054
0442F	CROP SCI (AGRO FARM)-PESTICIDE/HERBICIDE	Warehouse/Storage/Utility	1992	3,222	\$0	\$20,793	\$0	\$370,901	\$0	\$2,528	\$0	\$0	\$54,173	\$448,394
0442G	CROP SCIENCE (AGRONOMY FARM) - RESEARCH	Warehouse/Storage/Utility	1992	1,406	\$0	\$11,471	\$0	\$126,548	\$0	\$4,614	\$0	\$0	\$71,911	\$214,545
0442J	CROP SCI (AGRO FARM) - FERTILIZER STG	Warehouse/Storage/Utility	2011	2,414	\$0	\$2,150	\$0	\$29,705	\$2,848	\$3,160	\$3,107	\$9,367	\$0	\$50,337
0442K	CROP SCI (AGRO FARM) - STORAGE 2	Warehouse/Storage/Utility	2015	14,121	\$0	\$4,299	\$0	\$2,413	\$0	\$0	\$4,661	\$31,205	\$0	\$42,579
0445A	THAYER HOUSE	Residential / Sgl. Family	1952	3,090	\$0	\$15,171	\$147,609	\$161,793	\$0	\$0	\$0	\$4,965	\$124,174	\$453,712
0446A	VET RESEARCH-LARGE ANIMAL	School / K - 12	1958	4,225	\$0	\$0	\$0	\$663,725	\$0	\$0	\$20,631	\$4,022	\$66,452	\$754,831
0446C	VET RESEARCH-MANAGER'S HOUSE	Residential / Sgl. Family	1949	2,587	\$0	\$0	\$0	\$235,379	\$0	\$0	\$90,703	\$0	\$0	\$326,081
0446D	VET RESEARCH - BOVINE RESP DISEASE FAC	Warehouse/Storage/Utility	1949	500	\$0	\$0	\$24,087	\$112,748	\$0	\$0	\$3,961	\$0	\$0	\$140,796
0446F	VET RESEARCH-GERM FREE BARN	Shops / Trade	1960	2,880	\$0	\$29,358	\$103,867	\$492,009	\$0	\$0	\$7,315	\$6,436	\$43,643	\$682,628
0446I	VET RESEARCH-GARAGE 2	Warehouse/Storage/Utility	1965	572	\$0	\$0	\$13,999	\$66,746	\$0	\$0	\$0	\$0	\$0	\$80,745
0446J	VET RESEARCH-SMALL ANIMAL	Laboratory	1966	10,329	\$0	\$126,935	\$36,092	\$375,635	\$0	\$492,760	\$87,686	\$0	\$85,561	\$1,204,669
0446K	VET RESEARCH-POLE BARN	Warehouse/Storage/Utility	1970	830	\$0	\$0	\$4,997	\$54,964	\$0	\$0	\$0	\$0	\$0	\$59,960
0446L	VET RESEARCH-STORAGE BARN	Warehouse/Storage/Utility	1975	4,444	\$0	\$42,096	\$196,807	\$170,086	\$0	\$0	\$30,331	\$0	\$17,637	\$456,957
0446N	VET RESEARCH-BOVINE RESP DISEASE	Warehouse/Storage/Utility	1990	250	\$0	\$0	\$4,997	\$12,717	\$0	\$0	\$9,695	\$0	\$0	\$27,409
0446O	VET RESEARCH - ANIMAL SHELTER 2	Warehouse/Storage/Utility	1990	2,250	\$0	\$0	\$0	\$0	\$0	\$0	\$42,750	\$0	\$0	\$42,750
0447B	LARGE ANIMAL RES-HAY BARN	Warehouse/Storage/Utility	1984	3,833	\$0	\$10,398	\$12,036	\$276,667	\$0	\$0	\$0	\$0	\$0	\$299,101
0449	SHEEP LAMBING FACILITY	Warehouse/Storage/Utility	2015	15,000	\$0	\$59,418	\$0	\$32,338	\$0	\$0	\$0	\$14,355	\$0	\$106,111
0450A	PUREBRED BEEF-MAIN	Shops / Trade	1930	20,236	\$0	\$305,639	\$844,498	\$1,611,100	\$121,801	\$0	\$141,744	\$0	\$0	\$3,024,782
0450B	PUREBRED BEEF-SHEEP BARN	Warehouse/Storage/Utility	1953	2,046	\$0	\$24,344	\$12,662	\$56,706	\$25,657	\$0	\$7,234	\$0	\$0	\$126,603
0450C	PUREBRED BEEF-LOOSE HOUSING	Warehouse/Storage/Utility	1954	7,368	\$0	\$28,106	\$66,934	\$584,784	\$0	\$0	\$0	\$0	\$0	\$679,824
0450D	PUREBRED BEEF-SCALE HOUSE	Warehouse/Storage/Utility	1954	1,295	\$0	\$4,940	\$34,736	\$273,900	\$0	\$0	\$43,430	\$0	\$0	\$357,006
0450E	PUREBRED BEEF-HAY SHED	Warehouse/Storage/Utility	1954	640	\$0	\$1,788	\$7,617	\$74,080	\$0	\$0	\$0	\$0	\$0	\$83,485
0452	BOTANY FIELD LAB	Shops / Trade	1969	12,442	\$0	\$62,074	\$38,651	\$612,949	\$19,591	\$146,429	\$2,519	\$109,249	\$0	\$991,462
0452A	BOTANY FIELD LAB - PESTICIDE STORAGE	Warehouse/Storage/Utility	2001	3,520	\$0	\$2,150	\$39,709	\$102,887	\$0	\$6,953	\$0	\$143,760	\$0	\$295,458
0453D	UNIV FARMS SVC CTR - COMMUNITY STORAGE	Warehouse/Storage/Utility	1961	11,040	\$0	\$46,949	\$0	\$67,569	\$24,397	\$0	\$114,164	\$0	\$0	\$253,079
0453E	UNIV FARMS SVC CTR - S EQUIP STG BARN 1	Warehouse/Storage/Utility	1984	4,988	\$0	\$5,853	\$0	\$208,788	\$11,023	\$0	\$0	\$0	\$0	\$225,663
0453F	UNIV FARMS SVC CTR - S EQUIP STG BARN 2	Warehouse/Storage/Utility	1984	4,920	\$0	\$5,853	\$0	\$202,190	\$10,872	\$0	\$0	\$0	\$0	\$218,915
0453G	UNIV FARMS SVC CTR - 4-H	Warehouse/Storage/Utility	1986	14,374	\$0	\$10,514	\$0	\$318,316	\$33,250	\$7,222	\$0	\$0	\$0	\$369,301
0453H	UNIV FARMS SVC CTR - MAINTENANCE	Warehouse/Storage/Utility	1989	11,698	\$0	\$43,014	\$169,641	\$481,752	\$0	\$162,402	\$176,708	\$0	\$0	\$1,033,518
0453I	UNIV FARMS SVC CTR - NORTH MORTON	Warehouse/Storage/Utility	1990	10,408	\$0	\$8,960	\$253,785	\$72,686	\$0	\$0	\$129,386	\$0	\$0	\$464,817
0453J	UNIV FARMS SVC CTR - MTRL AND PESTICIDE	Warehouse/Storage/Utility	1990	4,894	\$0	\$4,299	\$664	\$128,080	\$10,815	\$0	\$64,055	\$0	\$0	\$207,913
0453K	UNIV FARMS SVC CTR - EQUIP STORAGE	Warehouse/Storage/Utility	1996	10,278	\$0	\$7,406	\$212,675	\$144,897	\$8,572	\$0	\$0	\$0	\$0	\$373,550
0456B	HORSE RESEARCH-WEST HORSE BARN	Warehouse/Storage/Utility	1946	13,484	\$0	\$1,698,820	\$450,387	\$700,319	\$0	\$0	\$0	\$0	\$0	\$2,849,526
0456D	HORSE RESEARCH-STALLION BARN	Warehouse/Storage/Utility	1946	919	\$0	\$139,800	\$5,078	\$64,059	\$0	\$0	\$0	\$0	\$0	\$208,937
0456F	HORSE RESEARCH-GARAGE IMPLEMNT SHED	Warehouse/Storage/Utility	1946	867	\$0	\$18,833	\$5,078	\$64,156	\$0	\$0	\$3,877	\$0	\$0	\$91,944
0456I	HORSE RESEARCH-WOODS HORSE BARN	Warehouse/Storage/Utility	1983	1,259	\$0	\$0	\$0	\$82,797	\$0	\$0	\$0	\$0	\$0	\$82,797
0456L	HORSE RESEARCH-TEACH RESEARCH BARN	Shops / Trade	1984	3,871	\$0	\$52,891	\$101,468	\$175,537	\$0	\$18,220	\$0	\$0	\$0	\$348,115
0456M	HORSE RESEARCH-STRG/EXERCISE	Warehouse/Storage/Utility	1990	8,028	\$0	\$62,708	\$7,617	\$410,371	\$0	\$0	\$6,594	\$0	\$0	\$487,290
0456N	HORSE RESEARCH-ARENA	Warehouse/Storage/Utility	1995	18,559	\$0	\$179,115	\$61,912	\$557,045	\$0	\$0	\$134,198	\$0	\$0	\$932,270
0456O	HORSE RESEARCH-BARN	Shops / Trade	1995	10,570	\$0	\$79,412	\$24,138	\$423,098	\$0	\$0	\$4,918	\$112,149	\$0	\$643,715
0468A	SHEEP RESEARCH BARN	Shops / Trade	1957	6,693	\$0	\$97,452	\$210,736	\$970,228	\$6,266	\$0	\$64,802	\$6,266	\$6,953	\$1,362,702
0468B	SHEEP TEACHING AND RESEARCH OPEN BARN	Shops / Trade	1961	2,473	\$0	\$0	\$4,997	\$355,493	\$0	\$0	\$21,601	\$0	\$0	\$382,090
0470C	ENDOCRINE RES-SURGERY	Warehouse/Storage/Utility	1962	4,078	\$0	\$43,870	\$73,600	\$529,937	\$0	\$0	\$0	\$0	\$0	\$647,407
0470D	ENDOCRINE RES-SWINE	Laboratory	1997	4,449	\$0	\$34,544	\$112,005	\$572,694	\$0	\$0	\$20,424	\$0	\$124,189	\$863,857
0470E	ENDOCRINE RES-POLLINATOR	Warehouse/Storage/Utility	2007	11,883	\$0	\$95,753	\$33,437	\$366,188	\$0	\$20,196	\$0	\$0	\$359,840	\$875,414
0470G	ENDOCRINE RES-ADREC	Laboratory	2010	7,007	\$0	\$26,497	\$918,489	\$143,743	\$62,173	\$0	\$483,422	\$15,802	\$0	\$1,650,126
0471A	BEEF CATTLE RESEARCH-MAIN	Warehouse/Storage/Utility	1963	55,210	\$0	\$220,725	\$3,307,746	\$3,317,749	\$51,954	\$11,392	\$466,524	\$13,951	\$0	\$7,390,042
0471H	BEEF CATTLE RESEARCH-BUNKER SILO	Warehouse/Storage/Utility	1963	15,000	\$0	\$0	\$7,743	\$83,813	\$0	\$6,835	\$18,507	\$0	\$0	\$116,900
0471I	BEEF CATTLE RESEARCH-ANIMAL SHELTER	Warehouse/Storage/Utility	1981	14,490	\$0	\$0	\$0	\$407,780	\$0	\$0	\$0	\$87,853	\$0	\$495,634
0471K	BEEF CATTLE RESEARCH-HAY STORAGE	Warehouse/Storage/Utility	1990	10,468	\$0	\$69,397	\$13,106	\$177,387	\$0	\$11,392	\$227,893	\$0	\$0	\$499,175
0471N	BEEF CATTLE RESEARCH-HANDLING	Shops / Trade	1996	1,635	\$0	\$0	\$4,997	\$133,633	\$0	\$0	\$0	\$2,459	\$0	\$141,089
0472A	TREE RESEARCH-SHOP/OFFICE	Shops / Trade	1964	2,209	\$0	\$82,607	\$240,762	\$558,207	\$0	\$0	\$0	\$0	\$15,981	\$897,557
0472D	TREE RESEARCH-HEADHOUSE	Laboratory	1975	6,024	\$0	\$61,195	\$7,495	\$860,484	\$0	\$0	\$79,208	\$0	\$0	\$1,008,382

0472G	TREE RESEARCH-STORAGE 1	Warehouse/Storage/Utility	1979	818	\$0	\$5,481	\$27,845	\$0	\$0	\$43,051	\$0	\$0	\$0	\$76,376
0472H	TREE RESEARCH-RESIDENCE	Residential / Sgl. Family	1978	2,082	\$0	\$8,845	\$18,540	\$361,589	\$65,296	\$68,777	\$18,037	\$0	\$10,408	\$551,492
0472I	TREE RESEARCH-SHADE HOUSE	Warehouse/Storage/Utility	1990	3,000	\$0	\$0	\$0	\$10,485	\$0	\$0	\$0	\$0	\$0	\$10,485
0472J	TREE RESEARCH-STORAGE 2	Warehouse/Storage/Utility	1996	5,251	\$0	\$35,182	\$113,708	\$2,413	\$3,107	\$0	\$0	\$0	\$0	\$154,410
0473A	POULTRY-SERVICE	Shops / Trade	1965	4,000	\$0	\$74,660	\$271,331	\$372,810	\$0	\$0	\$13,188	\$0	\$24,116	\$756,104
0473B	POULTRY-LAB	Warehouse/Storage/Utility	1965	4,700	\$0	\$16,827	\$0	\$217,660	\$0	\$0	\$43,038	\$0	\$0	\$277,525
0473C	POULTRY-CHICK BROOD	Warehouse/Storage/Utility	1965	5,949	\$0	\$50,320	\$4,997	\$232,349	\$0	\$0	\$54,463	\$0	\$0	\$342,130
0473D	POULTRY-CHICK REAR	Warehouse/Storage/Utility	1965	5,949	\$0	\$43,188	\$4,997	\$257,569	\$0	\$0	\$80,191	\$0	\$0	\$385,944
0473E	POULTRY-CHICK CAGE	Warehouse/Storage/Utility	1965	6,101	\$0	\$40,969	\$4,997	\$322,509	\$5,631	\$0	\$29,103	\$0	\$0	\$403,209
0473H	POULTRY-CHICK PROG	Warehouse/Storage/Utility	1965	5,948	\$0	\$45,619	\$0	\$201,136	\$12,067	\$0	\$81,766	\$0	\$0	\$340,589
0473I	POULTRY-CHICK BREED	Warehouse/Storage/Utility	1965	5,949	\$0	\$28,540	\$4,997	\$328,296	\$3,218	\$0	\$4,851	\$0	\$0	\$369,900
0473J	POULTRY-TURKEY BREED	Warehouse/Storage/Utility	1965	5,949	\$0	\$39,571	\$4,997	\$371,905	\$3,218	\$4,025	\$19,402	\$0	\$0	\$443,118
0473K	POULTRY-MINK	Warehouse/Storage/Utility	1957	4,276	\$0	\$38,804	\$298,521	\$519,703	\$0	\$805	\$155,333	\$65,677	\$0	\$1,078,842
0473M	POULTRY-FOREMAN HOUSE	Office / Administrative	1965	2,943	\$0	\$43,105	\$91,955	\$217,113	\$2,413	\$1,139	\$1,593	\$0	\$0	\$357,318
0473T	POULTRY-TURKEY RESEARCH	Warehouse/Storage/Utility	1996	5,124	\$0	\$22,436	\$0	\$185,827	\$0	\$0	\$0	\$8,794	\$0	\$217,057
0473U	POULTRY-LAYING HEN RESEARCH	Warehouse/Storage/Utility	2012	17,967	\$0	\$57,935	\$0	\$129,447	\$86,207	\$0	\$0	\$0	\$189,977	\$463,566
0474	ENTOMOLOGY FIELD RESEARCH-MAIN	Warehouse/Storage/Utility	1966	8,034	\$0	\$158,680	\$139,781	\$887,760	\$0	\$798	\$60,662	\$0	\$0	\$1,247,680
0476	HANCOCK TURFGRASS - FIELD LAB	Shops / Trade	1980	7,530	\$0	\$79,905	\$127,223	\$417,716	\$0	\$10,872	\$0	\$172,704	\$131,705	\$940,126
0476B	HANCOCK TURFGRASS - PESTICIDE STORAGE	Warehouse/Storage/Utility	1985	326	\$0	\$0	\$0	\$14,361	\$0	\$0	\$0	\$0	\$0	\$14,361
0476C	HANCOCK TURFGRASS - PUMP HOUSE	Warehouse/Storage/Utility	1985	39	\$0	\$0	\$0	\$1,142	\$56,924	\$0	\$0	\$0	\$0	\$58,066
0476D	HANCOCK TURFGRASS - COLD STORAGE	Warehouse/Storage/Utility	1996	6,027	\$0	\$2,150	\$3,107	\$188,446	\$0	\$4,425	\$68,935	\$0	\$0	\$267,062
0477A	BOX FARM-HOUSE	Residential / Sgl. Family	1982	2,878	\$0	\$0	\$32,934	\$163,725	\$0	\$0	\$0	\$0	\$44,547	\$241,205
0477B	BOX FARM-GARAGE	Warehouse/Storage/Utility	1982	625	\$0	\$0	\$4,997	\$42,965	\$0	\$0	\$0	\$0	\$3,051	\$51,013
0477C	BOX FARM-BARN	Warehouse/Storage/Utility	1982	1,424	\$0	\$0	\$0	\$180,340	\$0	\$1,554	\$0	\$0	\$0	\$181,893
0479	SWINE TEACH AND RESEARCH	Shops / Trade	1997	55,525	\$0	\$458,883	\$24,799	\$2,560,922	\$0	\$0	\$0	\$0	\$314,736	\$3,359,340
0479A	SWINE TEACH AND RESEARCH-COMPOST	Warehouse/Storage/Utility	1997	4,001	\$0	\$0	\$0	\$68,905	\$0	\$0	\$0	\$0	\$0	\$68,905
0479B	SWINE TEACH AND RESEARCH-MANURE 1	Warehouse/Storage/Utility	1997	304	\$0	\$0	\$0	\$33,456	\$0	\$0	\$0	\$0	\$0	\$33,456
0479C	SWINE TEACH AND RESEARCH-MANURE 2	Warehouse/Storage/Utility	1997	307	\$0	\$0	\$0	\$33,456	\$0	\$0	\$0	\$0	\$0	\$33,456
0479D	SWINE TEACH AND RESEARCH-SLURRY	Warehouse/Storage/Utility	1997	160,000	\$0	\$0	\$0	\$0	\$0	\$150,544	\$0	\$0	\$0	\$150,544
0479E	SWINE TEACH AND RESEARCH-STORAGE 3	Warehouse/Storage/Utility	1998	2,629	\$0	\$17,301	\$4,997	\$66,267	\$33,562	\$0	\$0	\$0	\$0	\$122,127
0480	BEEF CATTLE-STUDENT HOUSING	Office / Administrative	1998	1,000	\$0	\$39,269	\$35,270	\$57,661	\$2,728	\$3,418	\$3,793	\$0	\$4,065	\$146,203
0519	OLD COLLEGE FIELD	Gymnasium / Athletics	2002	21,795	\$0	\$13,626	\$41,942	\$466,022	\$6,709	\$328,779	\$0	\$143,028	\$218,415	\$1,218,521
0551	AKERS GOLF - PUMP HOUSE	Shops / Trade	2010	1,200	\$0	\$399	\$30,710	\$29,090	\$12,732	\$0	\$52,329	\$0	\$0	\$125,261
0606	MSU FCU (195 CRESCENT)	Office / Administrative	1970	60,047	\$0	\$0	\$213,858	\$5,647,415	\$0	\$688	\$336,160	\$0	\$462,599	\$6,660,720
0615	COMPOSTING FACILITY SOUTH CAMPUS	Warehouse/Storage/Utility	1990	50,800	\$0	\$379,733	\$517,946	\$43,785	\$0	\$0	\$0	\$0	\$87,346	\$1,028,810
0638	MSU COMMUNITY MUSIC SCHOOL	Classroom / Academic	1975	20,842	\$0	\$95,559	\$65,218	\$1,433,624	\$28,789	\$44,941	\$307,456	\$61,585	\$0	\$2,037,172
0720A	KELLOGG BIO-GULL LAKE-MANOR HOUSE	Office / Administrative	1925	20,261	\$0	\$1,230	\$24,100	\$2,316,091	\$0	\$5,812	\$0	\$0	\$119,615	\$2,466,848
0720B	KELLOGG BIO-GULL LAKE-MCCRARY AUDIT	Food Service / Dining	1959	7,721	\$0	\$46,066	\$4,670	\$1,629,127	\$41,159	\$27,504	\$8,399	\$0	\$0	\$1,756,925
0720C	KELLOGG BIO-GULL LAKE-VANDERPLOEG	Residential / Sgl. Family	1959	5,658	\$0	\$145,504	\$3,192	\$1,120,129	\$0	\$0	\$20,257	\$0	\$0	\$1,289,082
0720D	KELLOGG BIO-GULL LAKE-SHERRIFF HALL	Residential / Sgl. Family	1959	6,087	\$0	\$142,428	\$5,984	\$1,178,648	\$0	\$0	\$0	\$0	\$0	\$1,327,060
0720E	KELLOGG BIO-GULL LAKE-PUMP HOUSE	Shops / Trade	2010	1,200	\$34,082	\$163,025	\$376,010	\$25,676	\$0	\$0	\$8,656,401	\$0	\$0	\$9,255,194
0720M	KELLOGG BIO-GULL LAKE-ACADEM-STACK	Classroom / Academic	1959	64,012	\$0	\$549,841	\$65,642	\$11,365,075	\$89,718	\$5,686,660	\$7,969	\$0	\$0	\$17,764,905
0720S	KELLOGG BIO-GULL LAKE-CARRIAGE HSE	Residential / Sgl. Family	1959	9,176	\$0	\$23,346	\$0	\$963,834	\$0	\$1,958	\$996	\$0	\$6,594	\$996,727
0720T	KELLOGG BIO-GULL LAKE-ORCHRD DORM N	Residence Halls	1983	6,471	\$0	\$48,641	\$10,648	\$568,437	\$47,022	\$0	\$83,513	\$8,095	\$0	\$766,356
0720U	KELLOGG BIO-GULL LAKE-ORCHRD DORM S	Residence Halls	1983	4,848	\$0	\$53,243	\$4,052	\$359,374	\$63,299	\$0	\$0	\$0	\$0	\$479,969
0720W	KELLOGG BIO-GULL LAKE-POND FLD LAB	Laboratory	1975	1,963	\$0	\$29,367	\$16,493	\$861,278	\$0	\$0	\$332	\$0	\$0	\$907,470
0721N	KELLOGG BIRD SANC-RECEP & INFO	Office / Administrative	1959	9,107	\$0	\$108,942	\$2,067	\$1,428,292	\$0	\$0	\$20,030	\$3,112	\$0	\$1,562,442
0722H	KELLOGG BIO-FARM CNTR-FARM SYSTEM	Shops / Trade	1984	4,282	\$0	\$42,897	\$19,681	\$331,973	\$0	\$3,163	\$11,871	\$0	\$0	\$409,585
0727E	KELLOGG BIO-DAIRY-VISITOR CNTR	Office / Administrative	1983	3,604	\$0	\$66,468	\$4,612	\$404,784	\$256,840	\$0	\$0	\$0	\$10,294	\$742,997
0727G	KELLOGG BIO-DAIRY-DAIRY BARN	Shops / Trade	1984	27,944	\$0	\$72,033	\$3,993	\$1,662,956	\$8,912	\$37,344	\$0	\$3,112	\$0	\$1,788,349
0727V	KELLOGG BIO-DAIRY-LTER FIELD LAB	Laboratory	2007	3,121	\$0	\$8,982	\$4,612	\$217,389	\$0	\$0	\$0	\$11,483	\$366,239	\$608,706
0727X	KELLOGG BIO-DAIRY-PASTURE BASED	Shops / Trade	2009	21,427	\$0	\$21,736	\$0	\$172,059	\$0	\$544,488	\$0	\$0	\$0	\$738,284
0737A	CARETAKER'S RESIDENCE	Residential / Sgl. Family	1926	4,200	\$0	\$161,236	\$219,284	\$577,959	\$0	\$627	\$695	\$0	\$0	\$959,800
0737AA	CARETAKER'S GARAGE	Warehouse/Storage/Utility	1926	500	\$0	\$0	\$0	\$58,133	\$0	\$0	\$0	\$0	\$0	\$58,133
0737B	MAINTENANCE SHOP/WAREHOUSE	Shops / Trade	1966	10,500	\$0	\$163,866	\$245,220	\$1,376,715	\$0	\$3,987	\$65,218	\$0	\$0	\$1,855,006
0737C	PICNIC SHELTER	Warehouse/Storage/Utility	1965	1,750	\$0	\$1,997	\$7,804	\$26,004	\$0	\$0	\$0	\$0	\$0	\$35,804
0737D	PLANT CONSERVATORY	Laboratory	1968	10,400	\$0	\$775,840	\$1,102,681	\$6,649,249	\$91,222	\$243,930	\$0	\$24,519	\$0	\$8,887,441
0737E	RESTROOMS (GARDEN CENTER)	Shops / Trade	1965	625	\$0	\$6,757	\$82,622	\$89,686	\$0	\$0	\$0	\$2,657	\$27,961	\$209,683
0737F	RESTROOMS (PICNIC SHELTER)	Shops / Trade	1965	70	\$0	\$3,414	\$79,729	\$22,714	\$0	\$0	\$0	\$0	\$0	\$105,857

0737G	GARDEN CENTER	Office / Administrative	1965	11,000	\$0	\$544,813	\$295,266	\$2,356,090	\$171,507	\$2,848	\$3,160	\$0	\$94,685	\$3,468,370
0737H	ENTRANCE GATE SHELTER	Warehouse/Storage/Utility	2007	300	\$0	\$0	\$0	\$3,802	\$0	\$0	\$0	\$585	\$738	\$5,125
0737I	HARPER CONIFER COLLECTION SHELTER	Warehouse/Storage/Utility	1981	180	\$0	\$5,582	\$0	\$10,266	\$0	\$0	\$0	\$0	\$0	\$15,848
0737J	LATH HOUSE	Warehouse/Storage/Utility	2001	500	\$0	\$0	\$0	\$3,434	\$0	\$3,434	\$0	\$0	\$0	\$6,868
0737K	BLACKSMITH SHOP	Warehouse/Storage/Utility	1926	400	\$0	\$0	\$6,633	\$35,100	\$0	\$0	\$1,465	\$0	\$0	\$43,198
0737L	RAISED BED GARDENS	Warehouse/Storage/Utility	1991	2,000	\$0	\$0	\$0	\$4,535	\$0	\$0	\$0	\$0	\$0	\$4,535
0737M	RAISED BED SHELTER	Warehouse/Storage/Utility	1991	1,600	\$0	\$0	\$0	\$54,386	\$0	\$0	\$0	\$0	\$0	\$54,386
0737N	BONSAI BUILDING	Warehouse/Storage/Utility	2001	500	\$0	\$0	\$0	\$24,687	\$0	\$0	\$0	\$11,832	\$258	\$36,777
0737O	GAZEBO	Warehouse/Storage/Utility	1987	169	\$0	\$5,582	\$0	\$3,712	\$0	\$0	\$0	\$0	\$2,621	\$11,916
0737P	TREE CANOPY WALK	Warehouse/Storage/Utility	2023	4,500	\$0	\$0	\$0	\$81,268	\$0	\$0	\$0	\$0	\$30,905	\$112,173
0900	HANNAH TECHNOLOGY RESEARCH CNTR-OFFICE	Office / Administrative	1985	62,961	\$0	\$194,679	\$215,332	\$7,035,633	\$20,312	\$0	\$410,948	\$0	\$0	\$7,876,904
0900A	HANNAH TECHNOLOGY RESEARCH CNTR-EYDE	Office / Administrative	1986	144,000	\$0	\$293,644	\$514,414	\$17,486,757	\$75,601	\$135,901	\$3,290,644	\$8,837,070	\$981,731	\$31,615,762
0940	MICHIGAN BIOTECH INSTITUTE	Laboratory	1987	131,797	\$0	\$300,742	\$176,191	\$27,324,170	\$39,489	\$57,988	\$17,407,157	\$190,685	\$6,138,545	\$51,634,965
0943	BIOECONOMY RES AND DEV CTR	Laboratory	1964	138,000	\$0	\$618,567	\$553,055	\$33,081,362	\$14,544,306	\$25,815	\$29,798	\$689,042	\$259,125	\$49,801,071
1027	OFFICE COMPLEX	Office / Administrative	1983	64,159	\$0	\$9,915	\$180,654	\$9,121,831	\$21,480	\$1,478,366	\$0	\$28,083	\$0	\$10,840,329
1028	OFFICE COMPLEX ANNEX	Office / Administrative	1996	13,084	\$0	\$0	\$17,143	\$670,169	\$0	\$146,904	\$39,018	\$94,998	\$0	\$968,232
1701	UNIVERSITY VILLAGE - 1701	Residence Halls	2007	17,860	\$0	\$10,195	\$14,258	\$1,233,594	\$0	\$1,896	\$0	\$116,653	\$832,667	\$2,209,263
1702	UNIVERSITY VILLAGE - 1702	Residence Halls	2007	11,999	\$0	\$0	\$11,139	\$818,464	\$0	\$3,793	\$0	\$74,042	\$714,549	\$1,621,986
1703	UNIVERSITY VILLAGE - 1703	Residence Halls	2007	11,999	\$0	\$0	\$11,139	\$825,184	\$0	\$4,741	\$0	\$74,042	\$700,608	\$1,615,714
1704	UNIVERSITY VILLAGE - 1704	Residence Halls	2007	11,999	\$0	\$0	\$11,139	\$802,784	\$0	\$1,580	\$0	\$74,042	\$700,608	\$1,590,153
1705	UNIVERSITY VILLAGE COMMUNITY CENTER	Office / Administrative	2007	2,640	\$0	\$0	\$43,419	\$238,158	\$0	\$9,128	\$4,914	\$18,220	\$156,731	\$470,569
1706	UNIVERSITY VILLAGE - 1706	Residence Halls	2007	11,999	\$0	\$0	\$11,139	\$805,024	\$0	\$1,896	\$0	\$74,042	\$714,549	\$1,606,650
1707	UNIVERSITY VILLAGE - 1707	Residence Halls	2007	11,902	\$0	\$0	\$11,139	\$812,994	\$0	\$3,793	\$0	\$73,461	\$714,549	\$1,615,935
1708	UNIVERSITY VILLAGE - 1708	Residence Halls	2007	17,969	\$0	\$0	\$10,619	\$1,218,890	\$0	\$1,580	\$0	\$117,379	\$892,990	\$2,241,457
1709	UNIVERSITY VILLAGE - 1709	Residence Halls	2007	17,967	\$0	\$0	\$14,258	\$1,217,497	\$0	\$1,264	\$0	\$117,379	\$888,429	\$2,238,826
1801	1855 PLACE-BUILDING 1801	Residence Halls	2017	148,446	\$0	\$135,661	\$0	\$471,222	\$7,240	\$1,079,774	\$0	\$376,875	\$804,084	\$2,874,857
1802	1855 PLACE-BUILDING 1802	Residence Halls	2017	46,205	\$0	\$241,937	\$0	\$0	\$10,351	\$426,933	\$0	\$265,680	\$610,468	\$1,555,370
1803	1855 PLACE-BUILDING 1803	Residence Halls	2017	38,731	\$0	\$241,937	\$0	\$0	\$17,511	\$357,561	\$0	\$222,303	\$502,779	\$1,342,092
1804	1855 PLACE-BUILDING 1804	Residence Halls	2017	39,058	\$0	\$249,680	\$0	\$24,372	\$17,511	\$218,441	\$0	\$256,794	\$521,975	\$1,288,772
1805	1855 PLACE-BUILDING 1805	Residence Halls	2017	50,083	\$0	\$160,468	\$0	\$167,265	\$17,511	\$269,068	\$0	\$171,390	\$658,538	\$1,444,240
1806	1855 PLACE-BUILDING 1806	Residence Halls	2017	26,659	\$0	\$215,573	\$0	\$0	\$14,320	\$164,055	\$0	\$174,213	\$365,494	\$933,656
1807	1855 PLACE-BUILDING 1807	Residence Halls	2017	26,206	\$0	\$146,279	\$49,861	\$0	\$14,320	\$161,312	\$0	\$173,043	\$359,850	\$904,664
1808	1855 PLACE-BUILDING 1808	Residence Halls	2016	56,869	\$0	\$456,176	\$57,594	\$4,773	\$313,271	\$32,445	\$167,340	\$744,088	\$156,394	\$1,932,080
1809	1855 PLACE-BUILDING 1809	Residence Halls	2016	56,864	\$0	\$467,045	\$57,594	\$4,773	\$313,227	\$32,445	\$167,296	\$744,088	\$156,350	\$1,942,819
1810	1855 PLACE-BUILDING 1810	Residence Halls	2016	56,865	\$0	\$456,176	\$57,594	\$4,773	\$313,227	\$32,445	\$167,296	\$744,088	\$156,350	\$1,931,950
				21,836,310	\$5,325,059	\$140,592,907	\$433,147,410	\$3,251,429,074	\$121,282,226	\$141,612,075	\$144,722,590	\$164,686,026	\$177,198,341	\$4,579,995,707

Appendix F: Utility System Condition and Renewal Priorities

Fiscal Year 2028
Budget Information

5-Year Capital Plan

Submitted By:

Appendix F: Utility System Condition and Renewal Priorities

This appendix provides additional detail on the condition, current renewal priorities, and risk mitigation strategies for MSU's major utility generation and distribution systems. Current priorities reflect known conditions and identified requirements, while the Utility Master Plan, anticipated to be complete in spring 2027, will inform future priorities and provide a coordinated framework to guide long-term utility investment.

Chilled Water Generation and Distribution

MSU uses a combination of building-level chillers and regional chilled water plants to provide cooling across campus. This approach reflects the historic development of campus and the varying needs of individual facilities. Some buildings continue to rely on dedicated, building-level chillers, while others receive cooling from regional chilled water plants.

A 2014 Chilled Water Master Plan study established a longer-term direction toward a more centralized cooling strategy, supported by the subsequent addition of the West Regional Chilled Water Plant. This approach allows cooling demand to be served through shared generation and distribution infrastructure rather than relying solely on individual building systems.

The transition is occurring incrementally as funding, building projects, infrastructure renewal, and opportunities to extend the chilled water network align. As decentralized chillers reach renewal points, MSU can evaluate whether reinvestment in building-specific equipment or connection to a regional chilled water plant represents the most appropriate long-term solution.

Current Priorities / Planned Work:

- Construction of the West Regional Chilled Water Plant.
- Continued renewal of regional chilled water generation and distribution infrastructure.

Risk Mitigation Strategies:

- Using metering, inspection, and maintenance data to identify emerging deficiencies.
- Proactively evaluating opportunities to transition buildings from decentralized chillers to regional chilled water service as existing equipment approaches the end of its useful life.

- Identifying and implementing opportunities to improve energy efficiency, reduce operating costs, and optimize system performance.

Electrical Distribution

The electrical distribution system is very reliable but includes aging equipment and infrastructure that require continued management and targeted reinvestment. Although portions of the cable network are older, age alone does not warrant wholesale replacement.

Recent investments include a duct bank extension from the Power Plant to North Campus, providing future distribution capability to support campus growth. Based on projected campus growth and development identified in the Vision 2050 Campus Land Use and Facilities Plan, further expansion of the electrical distribution network, including a potential duct bank extension to the southeast quadrant of main campus, will be necessary to support long-term capacity and reliability needs.

Renewal priorities focus on equipment approaching the end of its useful life, automation, enhanced protection capability, increasing capacity, and components where failure could significantly disrupt campus operations.

Current Priorities / Planned Work:

- Continued replacement of aged PCB transformers serving buildings across campus.
- Conduct a comprehensive near-term electrical capacity and distribution study to assess existing system limitations and guide future infrastructure upgrades, network expansion, or alternative strategies.

Risk Mitigation Strategies:

- Using electrical metering and system monitoring data to identify abnormal loading conditions, emerging reliability concerns, and potential capacity constraints.
- Proactively addressing two known points of potential failure within the underground electrical distribution system.

Sanitary Sewer System

The sanitary sewer system is predominantly owned by MSU with some components shared with and/or owned by other adjacent municipalities. The sanitary network is affected by age, deterioration, infiltration, and localized capacity or performance concerns. Because much of the infrastructure is underground and under continuous flow, the condition of this infrastructure can be difficult to assess.

Current Priorities / Planned Work:

- Continued inspection, cleaning, rehabilitation, and targeted replacement.
- Addressing deteriorated piping, structures, and known problem areas through an annual allocation from Capital Renewal.

Risk Mitigation Strategies:

- Using inspection and maintenance data to identify emerging deficiencies.
- Prioritizing locations with recurring issues or significant consequences of failure.
- Coordinating underground renewal with adjacent capital and infrastructure work.
- A comprehensive Sanitary Sewer Hydraulic Model will be developed to assess campus collection system capacity, evaluate hydraulic constraints, and guide future infrastructure investments.

Steam Distribution

The steam distribution system received a major overhaul between 2000 and 2018 which has significantly increased its life span; however, aging piping, vaults, tunnels, direct buried pipes, and related infrastructure that require ongoing renewal to maintain reliable service. Deterioration associated with age, corrosion, water intrusion, and the operating environment contributes to recurring repair needs and increases the potential for service interruptions. Continued targeted restoration of deteriorated segments and supporting infrastructure will be necessary to manage risk and maintain system performance.

Current Priorities / Planned Work:

- Annual steam tunnel and vault structural restoration work and mechanical piping support and anchor repairs as required.
- Steam trap assembly replacements.

Risk Mitigation Strategies:

Annually, phased renewal of the steam tunnel system is performed by repairing deteriorated structural concrete in tunnels and vaults and restoring or replacing pipe supports and anchors as needed. At the same time, flood monitoring and pressure/temperature sensors are installed to provide early warning of abnormal conditions and enable proactive response.

Storm Sewer System

The stormwater distribution system varies in age and condition and requires ongoing renewal to maintain effective drainage across campus. Aging pipes, structures, and drainage components can contribute to localized flooding, deterioration, and other site impacts. Renewal investments are coordinated with roadway, site, and building projects where possible to address drainage deficiencies efficiently.

Current Priorities / Planned Work:

- Renewing deteriorated storm piping, structures, and drainage components.
- Addressing known drainage deficiencies and localized flooding concerns.
- Integrating stormwater management practices with roadway, landscape, and building projects.

Risk Mitigation Strategies:

- Maintaining routine inspection and cleaning of critical drainage infrastructure.
- Prioritizing areas where drainage deficiencies could affect buildings or critical infrastructure.
- Incorporating resilience and stormwater practices into future planning.

T.B. Simon Power Plant

The T.B. Simon Power Plant is MSU's central cogeneration facility, providing electricity and steam to support academic, residential, research, athletic, and administrative facilities on the East Lansing campus. The plant produces electricity and steam through natural gas cogeneration, complemented by a Reciprocating Internal Combustion Engine (RICE) plant for electricity generation, an auxiliary boiler dedicated to campus steam send-out production, and carport solar arrays that diversify campus energy resources.

Electricity from these generation assets supports campus power needs, while steam from the plant and auxiliary boiler is distributed through the campus steam network to more than 100 buildings for heating, cooling, and other functions. The plant's interconnected generation and support systems vary in age and condition, requiring continued maintenance and capital renewal to maintain reliable campus utility service. Capital renewal focuses on critical equipment, reliability and redundancy, regulatory requirements, and components where failure could significantly affect campus utility operations.

Current Priorities / Planned Work:

- Construction of an additional combined heat and power unit.
- Renewal and modernization of critical power generation equipment and supporting systems.
- Inspection, repair, and maintenance of plant structures and utility assets.
- Ongoing turbine overhaul program.

Risk Mitigation Strategies:

The T.B. Simon Power Plant relies on a diverse asset portfolio—including three power boilers, five steam turbine-generators, one gas turbine-generator equipped with a Heat Recovery Steam Generator (HRSG), three Reciprocating Internal Combustion Engine (RICE) generators, and one auxiliary boiler—to maintain reliable electricity and steam service to the campus. Additionally, a second combustion turbine-generator with an HRSG is currently under construction to expand facility capacity and efficiency. To ensure long-term asset integrity, operational efficiency, and reliability, each boiler undergoes annual inspections and maintenance per applicable boiler codes, combustion turbines are inspected and overhauled according to manufacturer specifications, and each steam turbine undergoes a major overhaul on a five-year cycle, resulting in one major steam turbine overhaul annually.

Water Systems

MSU owns and operates a municipal water system that supplies and distributes water across campus. The system includes 73 miles of water mains and is supplied by groundwater wells located south of the main campus. Average daily demand is approximately 3.0 million gallons per day (mgd), with maximum daily demand of approximately 5.0 mgd.

The campus water system consists of two primary distribution areas:

- **Well Distribution System:** Supplies facilities in the less-developed southern portion of campus directly from the groundwater well system.
- **Domestic Water Distribution System:** Supplies the more densely developed campus with treated well water from the Water Treatment Plant (WTP).

The groundwater system includes 18 wells, 15 of which are currently in service, with approximately 12.4 mgd of total installed well capacity. Water from the well field is conveyed through three primary transmission mains to both the Well Distribution System and the WTP. Major improvements completed by 2020 included a new elevated storage tank and WTP. WTP has a rated capacity of approximately 6.87 mgd, with the ability to expand to approximately 8.59 mgd.

Domestic Water Distribution

The Domestic Water Distribution System supplies the primary developed areas of campus with groundwater treated at the WTP. The system benefits from the significant investment completed by 2020 in the WTP and elevated storage tank; however, the extensive campus water distribution network represents an ongoing long-term renewal responsibility. Ductile iron is the predominant water-main material, and pipe condition and remaining service life vary across the system. The domestic distribution system contains a substantial amount of older infrastructure, including mains approaching or exceeding their estimated useful lives. However, age alone does not indicate imminent failure. The 2024 Water Asset Management Plan completed by Fishbeck evaluates main condition using age, material, hydraulic characteristics, and break history because buried pipe cannot be directly observed. Replacement priorities are therefore based on a combination of condition, criticality, documented breaks and repairs, hydraulic performance, and opportunities to coordinate work with other utility projects.

Current Priorities / Planned Work:

- Continuing targeted renewal of aging or failure-prone water mains, valves, hydrants, and associated components.
- Addressing known leakage, break history, condition, and service-reliability concerns.
- Protecting and maintaining recent investments in WTP and elevated storage infrastructure.
- Coordinating water main renewal with roadway, utility, and other capital projects to minimize disruption and avoid repeated excavation.

Risk Mitigation Strategies:

- Monitoring break and repair history to identify chronic problem areas.
- Prioritizing infrastructure where failure would significantly disrupt campus operations or create substantial operational risk.
- Maintaining isolation capability to limit the extent of service interruptions.
- Monitoring system demand and performance as campus development and water use patterns change.

Well Water Distribution

The Well Distribution System supplies facilities in the less populated southern portion of campus directly from MSU's groundwater wells. The system includes aging wells, piping, pumps, controls, and related infrastructure that require ongoing assessment and renewal.

The distribution network includes a significant amount of older infrastructure, particularly Transite water main; however, performance to date has not indicated widespread deterioration or a need for wholesale replacement based solely on age.

Continued investment is focused on maintaining a reliable water supply and addressing condition, operational, and regulatory needs. A key priority is the planned replacement of aging wells as they approach the end of their useful lives to maintain reliable water supply capacity and system redundancy. Other renewal priorities consider asset condition and performance, consequence of failure, and opportunities to coordinate improvements with future well and infrastructure projects.

Current Priorities / Planned Work:

- Replacing aging wells
 - Construct Wellhouse 20R
 - Construct Wellhouse 18

Risk Mitigation Strategies:

Annual Well Maintenance Program: Ongoing major well repairs and rehabilitation help maintain water supply capacity and reliability while extending the useful life of existing wells.

Utility Planning and Future Priorities

MSU's utility infrastructure represents a significant long-term investment that is essential to supporting reliable campus operations. The needs identified in this report reflect current asset conditions, system performance, known deficiencies, and planned renewal activities.

The Utility Master Plan will guide future decisions regarding energy technologies and utility system investments. In addition, a Water System Hydraulic and Reliability Study will be completed by the end of this year, which will identify any current and future improvements required to meet the future growth of the campus. As preferred strategies are identified, the plan will provide a coordinated roadmap for prioritizing capital needs, sequencing infrastructure improvements, and advancing system reliability, resilience, capacity, and operational efficiency across campus.

Future investments will be advanced as funding and project coordination opportunities arise, balancing immediate renewal needs with the university's long-term infrastructure strategy.

Fall 2026

Appendix G: SFY2028 Capital Outlay Request

**Fiscal Year 2028
Budget Information**

**5 -Year Capital Request Planning
and Capital Outlay Request**

Submitted By:

**MICHIGAN STATE
UNIVERSITY**

**STATE FISCAL YEAR 2028
CAPITAL OUTLAY PROJECT REQUEST**

Institution Name: Michigan State University
Capital Outlay Code:
Project Title: College of Veterinary Medicine - Large Animal Hospital
Project Focus: ☒ Academic ☒ Research ☐ Administrative/Support
Type of Project: ☐ Renovation ☐ Addition ☒ New Construction
Approximate Square Footage: Approximately 124,000 gross square feet
Total Estimated Cost: \$290 million
State Share Amount: \$30 million
Institutional Share Amount: \$260 million
Estimated Duration of Project: Estimated construction duration 24 to 30 months
Is the Five-Year Plan posted on the institution's public internet site? ☒ Yes ☐ No
Is the requested project included in the Five-Year Capital Outlay Plan? ☒ Yes ☐ No
Is the requested project the top priority in the Five-Year Capital Outlay Plan?
(major project only) ☒ Yes ☐ No

Project Purpose

Michigan State University proposes a new Large Animal Hospital to preserve Michigan's access to advanced veterinary care for livestock, horses, and companion farm animals while preparing the next generation of veterinarians and veterinary nurses. The project will replace a hospital built in 1965 whose outdated animal housing and handling facilities, limited treatment and isolation capacity, and inadequate supporting infrastructure increasingly constrain patient care, clinical education, and research.

As home to Michigan's only college of veterinary medicine, MSU connects advanced clinical care with the education of future veterinarians and veterinary nurses. Its Veterinary Medical Center provides approximately 30,000 patient visits annually across its small and large animal services. The Large Animal Hospital is a particularly critical statewide resource, providing advanced specialty and 24/7/365 emergency and specialty care for livestock, horses, and companion farm animals. As one example, MSU is the only hospital providing surgery for colic – which can be a life-threatening condition in horses - surgical emergencies, MSU is the only option for advanced treatment in Michigan, making the hospital indispensable to animal owners, agricultural producers, and referring veterinarians throughout the state.

Despite its essential statewide role, the existing Large Animal Hospital faces significant physical and operational limitations that increasingly affect patient care, clinical education, and research.

- **Providing Essential Care.** The hospital's animal housing and handling facilities were designed more than 60 years ago and are poorly suited to the diverse animals treated today. Some horse stalls are too short and allow neighboring animals to make contact, while stalls and handling equipment originally designed for dairy cattle are too large for smaller species, including sheep, goats, and pigs, requiring temporary fencing and other workarounds. The current site also lacks space for secure outdoor paddocks for grazing and exercise, requiring horses to be walked through parking areas shared with vehicles and pedestrians. These conditions create avoidable safety risks for patients, staff, and visitors.

- **Emergency and Critical Care.** The hospital's layout creates additional challenges for emergency and critical care, particularly given MSU's role as Michigan's only 24/7 tertiary care facility for large animals, providing advanced emergency, surgical, and specialty services. The Pegasus Critical Care Center is located across a parking lot from the main hospital, requiring staff to travel between buildings and separating critically ill patients from essential services. Pegasus also lacks a dedicated examination room, requiring horses to be examined in their stalls. Inadequate isolation facilities and ventilation further limit MSU's ability to prevent the spread of infectious diseases and safely manage patients requiring specialized care.
- **Preparing Future Professionals.** The Large Animal Hospital is an essential training environment for veterinary and veterinary nursing students, who develop clinical judgment and practical skills through direct participation in patient care. However, the existing facility limits opportunities to learn in modern, species-appropriate clinical environments. Students frequently observe clinicians adapting outdated stalls and handling systems to safely manage patients rather than learning with equipment and facilities that reflect contemporary veterinary practice. Limited space for animal handling, treatment, and outdoor patient care further constrains hands-on learning. Space limitations also require MSU to house its teaching horses off-site, making them less readily available for hands-on instruction. Students must work around the logistics of transporting animals rather than having consistent access to horses in an appropriate clinical training environment.
- **Advancing Research and Innovation.** The Large Animal Hospital supports research that improves animal health by studying diseases, developing diagnostic tools, and evaluating new treatments. However, limited research space and outdated facilities restrict the studies MSU can undertake. For example, researchers can evaluate promising treatments for navicular syndrome, a painful condition affecting horses, but limited imaging options and the need to anesthetize horses to image their feet complicate clinical trials and discourage some owners from participating. Because the hospital's current computed tomography (CT) and magnetic resonance imaging (MRI) equipment requires horses to lie on their sides with their legs positioned inside the scanners, they must undergo general anesthesia, which carries additional risks for large animals. The new hospital will feature standing CT technology, allowing horses to be imaged while standing under light sedation, reducing these risks and making participation in clinical research safer and more accessible. Research projects must also compete with patient care and teaching for surgical facilities and animal housing, often delaying or preventing studies. The new facility will address these challenges by providing dedicated teaching and research spaces. Together, these limitations restrict MSU's ability to advance new treatments, attract research partnerships, and translate discoveries into better veterinary care.

Why Renovation Is Not a Viable Alternative

MSU's comprehensive feasibility study evaluated renovation, continued investment in existing facilities, and new construction. The study identified fundamental limitations that renovation cannot adequately resolve. The hospital's constrained site cannot accommodate the outdoor paddocks, animal handling areas, and recovery spaces needed for modern large animal care. Moreover, major renovations would require closure of the current large animal hospital operations during renovations, interrupting essential access to emergency and surgical services for animals across Michigan.

The hospital's aging manure management system illustrates this challenge. Its specialized underground infrastructure has no readily available replacement, and extensive demolition and pipe replacement would be required to repair it. Renovating patient stalls would similarly require suspending clinical operations. These disruptions would affect not only patient care but also the education of veterinary and veterinary nursing students and research that depends on the hospital.

The need to act is increasingly urgent as the hospital's aging infrastructure becomes more difficult to maintain. Its specialized, underground manure management system is a particular concern. Replacement components are not readily available, and MSU has been unable to identify an outside contractor willing to undertake the extensive work required to repair or replace it. The College of Veterinary Medicine has invested in dedicated staff expertise to keep the system operating, but continued reliance on this aging infrastructure creates a growing risk of disruptions to essential hospital services.

The Proposed Large Animal Hospital

Constructing a new Large Animal Hospital at a separate location will allow MSU to maintain essential emergency, surgical, and specialty services throughout construction while creating a facility designed for modern veterinary medicine. The new hospital will provide expanded stall capacity, appropriately sized stalls, treatment areas, and animal handling equipment for horses, livestock, and smaller farm animals, along with secure outdoor paddocks and recovery areas. Dedicated isolation facilities and improved separation of sick patients from healthy research and teaching animals will strengthen disease prevention, while a more connected hospital layout will improve access to critical care and supporting services.

These improvements will expand opportunities for hands-on clinical education. Veterinary and veterinary nursing students will develop the skills, confidence, and experience needed to care for a diverse range of large animal species while learning in facilities that reflect contemporary veterinary practice. This investment will strengthen MSU's efforts to prepare graduates for careers in large animal and rural practice, complementing initiatives such as its Future Large Animal Medical Exposure (FLAME) program and the Michigan Rural Veterinary Workforce Model, developed in partnership with the Michigan Department of Agriculture and Rural Development (MDARD).

Modern facilities will also strengthen MSU's ability to conduct clinical research, evaluate new treatments, and collaborate with industry partners to advance animal health. While the hospital contributes to MSU's broader One Health vision, it represents an independent investment with a clear statewide purpose: preserving access to specialized veterinary care, supporting Michigan's animal agriculture industries, and preparing the veterinary professionals who will serve its communities for generations to come.

Scope of the Project

Michigan State University proposes construction of a new Large Animal Hospital of approximately 124,000 gross square feet, providing modern facilities for emergency, surgical, and specialty care; diagnostic imaging; inpatient treatment; clinical education; and research. The estimated \$290 million project includes supporting site utilities, animal handling and outdoor facilities, parking, and other infrastructure necessary for hospital operations and practical instruction.

The proposed hospital will consolidate services currently distributed across three facilities: the Large Animal Hospital's C-wing (48,030 gross square feet (GSF), including central sterilization), the Pegasus Critical Care facility (6,608 GSF), and the McPhail Equine Performance Center (20,839 GSF). Together, these facilities total approximately 75,500 gross square feet. The new hospital will provide an additional approximate 48,500 gross square feet while bringing these currently separated clinical, teaching, and support functions together in a purpose-built facility.

The additional space and improved layout will address some of the most significant limitations of the existing hospital, particularly in emergency and critical care, patient safety, and infectious disease management. A dedicated equine intensive care unit will provide closer patient monitoring and immediate access to examination, surgical, and supporting services. Purpose-built isolation facilities connected to the hospital will enhance infectious disease control while improving patient care, staff safety, and the ability to safely manage animals with potentially contagious diseases. Enclosed, drive-through unloading areas and ceiling-mounted lifting equipment will allow veterinary teams to safely receive, handle, and move large animals, including critically ill or injured patients unable to stand or walk independently.

The new facility will also provide appropriately sized stalls and handling equipment for horses and livestock; dedicated teaching and research spaces; and examination and treatment areas located near hospitalized patients. These improvements will allow clinical teams to provide more efficient care while creating opportunities for teaching and research that are currently constrained by competition for limited space. The proposed facility will also accommodate advanced diagnostic capabilities, including space for standing CT imaging, and indoor arenas for equine evaluation and performance assessment.

The project includes the following principal clinical components:

- **Emergency, surgical, and critical care:** Modern surgical suites, emergency treatment areas, and a dedicated equine intensive care unit (ICU) will strengthen MSU's ability to treat critically ill and injured

animals. The Pegasus Critical Care Center, currently located across a parking lot from the main hospital, is designed to be integrated into the new facility, allowing continuous patient monitoring, dedicated examination and treatment space, and immediate access to surgical and supporting services.

- **Advanced diagnostic imaging:** Modern imaging facilities will support timely diagnosis and treatment of complex conditions. Space for standing computed tomography (CT) will allow clinicians to obtain detailed images of appropriate large animal patients without requiring general anesthesia, reducing risks and expanding diagnostic options.
- **Equine and livestock care:** Purpose-built examination, treatment, and inpatient areas will accommodate horses, cattle, sheep, goats, pigs, and other farm animals. Appropriately sized stalls, species-specific handling equipment, and dedicated mare and foal facilities will improve patient safety and care. Indoor arenas and performance assessment areas will support the evaluation of lameness and monitor recovery.
- **Patient access and infection prevention:** Dedicated trailer unloading areas and safer routes for moving animals will reduce conflicts with vehicle and pedestrian traffic. Isolation facilities, improved ventilation, and separation of healthy and potentially infectious animals will strengthen disease prevention. Adjacent outdoor paddocks will provide space for safe animal movement, exercise, grazing, and recovery.
- **People-centered spaces:** The current Large Animal Hospital has limited dedicated spaces for students, faculty, staff, and clients. A new facility will provide modern, functional workspaces, collaborative teaching and meeting areas, comfortable client consultation spaces, and dedicated employee break and wellness areas. These improvements will address longstanding space constraints, enhance operational efficiency, support employee well-being, and create an environment that strengthens recruitment, retention, and the overall teaching and clinical experience.

Teaching and Learning

Dedicated Teaching and Treatment Spaces. The new hospital will provide a modern clinical training environment where veterinary and veterinary nursing students learn alongside faculty, residents, and clinical professionals. Dedicated teaching spaces will allow students to practice essential techniques, including animal handling, examination, and clinical procedures, before applying those skills to client-owned patients. Purpose-built examination, surgical, imaging, and treatment areas will further support hands-on learning in emergency and specialty care.

Integrated Facilities for Training and Patient Care. Adjacent paddocks and outdoor animal facilities will provide opportunities for students to safely move, handle, and evaluate horses and livestock, including assessing movement, exercise, and recovery. Together with appropriately sized stalls and handling equipment, these spaces will help students develop the practical skills and confidence needed to care for the diverse animals encountered in large animal and rural practice.

The new site will also accommodate MSU's teaching horse herd, currently housed off-site because of space limitations. Today, these horses must be transported to the hospital for instruction and serve as blood donors for hospitalized patients, sometimes requiring transport during nighttime emergencies. Housing the herd on the same property will provide more consistent access for students, reduce the need for transportation, and make these horses readily available when critically ill patients require blood transfusions.

Research

Dedicated Spaces and Increasing Efficiency. The new hospital will strengthen MSU's ability to advance animal health through clinical research, including the study of diseases, evaluation of new treatments, and clinical trials. Dedicated research spaces, supported by modern diagnostic, surgical, and treatment facilities, will allow researchers to conduct studies without competing with daily patient care for limited clinical space. These improvements will support more efficient evaluation of promising new therapies and expand opportunities for collaboration with industry and other research partners.

Reducing Risk. The proposed design will also provide better separation between hospitalized patients and healthy animals used for research and teaching, reducing the risk of spreading infectious diseases between these populations. Appropriate animal housing, treatment areas, and improved infection prevention measures will help protect research animals and hospital patients while supporting studies that can lead to better treatments for Michigan's livestock, horses, and other farm animals.

Increasing Capacity. By expanding, a new facility would provide dedicated space for research necropsies and diagnostics while allowing clinical cases, hands-on teaching, and research activities to occur concurrently. Expanded stall capacity and purpose-designed spaces would eliminate current limitations that require activities to be scheduled around available housing and shared facilities. This would increase clinical capacity, enhance experiential learning, and support more complex and collaborative research.

Specialized Building Requirements and Cost

The estimated \$290 million project cost reflects the specialized requirements of a large animal teaching hospital, which must accommodate the care, movement, and housing of animals weighing hundreds or thousands of pounds while supporting advanced clinical care, education, and research.

Significant cost considerations include dedicated isolation facilities with separate heating, ventilation, and air conditioning (HVAC) systems to help prevent the spread of infectious diseases. The new hospital will also provide improved oxygen delivery and other essential systems for critically ill patients, addressing limitations of the existing Pegasus Critical Care Center. Separate facilities for horses and food-producing animals will further support infection prevention and species-appropriate care.

Advanced diagnostic and equine performance facilities represent another substantial investment. Space and equipment for standing CT and MRI will support more detailed diagnosis of complex conditions, while a purpose-built equine performance center, including indoor arenas and lunging areas, will allow clinicians to evaluate horses' movement, identify causes of lameness, and assess recovery from injury or surgery.

The project also requires specialized animal housing and handling systems, including safe unloading areas, equipment for moving large animals that cannot stand, and appropriate stalls and treatment spaces. For example, ceiling-mounted lifting systems will allow clinical teams to safely move horses and other large animals that cannot stand, reducing risks to both patients and personnel during emergencies.

The total project budget includes adjacent outdoor paddocks for patient recovery, along with parking and trailer access. Supporting infrastructure includes steam, chilled water, electrical and domestic water services, as well as driveways, parking, walking and biking pathways, wayfinding, and landscaping.

Location and Continuity of Services

MSU's feasibility study identified a preferred location near the northwest corner of Hagadorn and Mount Hope Roads. The site provides room for the hospital, supporting animal facilities, patient and trailer circulation, and parking. Construction at a new site will allow the existing hospital to continue providing emergency and specialty care while the replacement facility is built.

The hospital will operate independently. It will also support MSU's broader vision for an integrated One Health campus; additional facilities contemplated under that vision are outside the scope and budget of this request.

Program Focus of Occupants

The new Large Animal Hospital will house the clinical services, educational activities, and clinical research programs of MSU's Department of Large Animal Clinical Sciences. Its primary occupants will include veterinary specialists, clinical faculty, veterinary nurses, and clinical support professionals who provide advanced emergency, surgical, and specialty care. The hospital will also serve as an essential training environment for students in MSU's Doctor of Veterinary Medicine (DVM) and veterinary nursing programs, as well as residents, graduate students, and other advanced trainees.

Dedicated teaching and clinical research spaces will support these activities, including clinical trials and studies involving large animal patients. Basic laboratory research will remain in other MSU facilities, with

researchers from across the University collaborating on clinical studies conducted at the hospital. Together, these programs will integrate patient care, clinical education, and research while serving referring veterinarians, agricultural producers, equine professionals, and animal owners throughout Michigan.

Clinical Care and Specialty Medicine

Expert teams delivering critical care. Approximately 40 faculty and staff will provide advanced emergency, surgical, and specialty care for horses, cattle, sheep, goats, pigs, and other large animal patients. As Michigan's only 24/7 tertiary care facility for large animals, the hospital serves as the only critical statewide resource for complex medical and surgical cases, including emergencies requiring specialized expertise and equipment. Clinical teams comprising veterinary specialists, veterinary nurses, and support professionals will provide comprehensive care for patients referred by practicing veterinarians and those requiring immediate treatment.

Experiential learning in action. These clinical services also form the foundation of the hospital's educational mission. Faculty, residents, and experienced veterinary nurses will supervise students as they participate in patient examinations, diagnostic procedures, treatment, surgery, and ongoing care. Through direct involvement in real clinical cases, students and advanced trainees will develop the practical skills and clinical judgment needed to care for a diverse range of large animal patients.

Veterinary Education and Workforce Development

The Large Animal Hospital is an essential training environment for MSU's Doctor of Veterinary Medicine (DVM) and veterinary nursing programs, which prepare graduates to become veterinarians and Licensed Veterinary Technicians (LVTs), respectively. Current enrollment includes approximately 460 DVM students and 150 veterinary nursing students across all years of the programs, along with approximately eight residents pursuing specialty board certification annually. The new hospital will provide the clinical training capacity needed to accommodate future enrollment growth in both programs.

Doctor of Veterinary Medicine (DVM). All DVM students are required to complete a large animal medicine and surgery rotation in the hospital, gaining direct experience in the examination, diagnosis, treatment, and management of horses, livestock, and other farm animals. Working alongside faculty, specialists, residents, and experienced veterinary nurses, students develop essential clinical judgment and practical skills in animal handling, anesthesia, surgery, diagnostic imaging, emergency care, and patient management. Dedicated teaching spaces and modern clinical facilities will support more students participating in supervised learning, including opportunities to practice essential techniques before working with client-owned patients.

Veterinary Nursing. Veterinary nursing students may also elect to complete clinical rotations at the Large Animal Hospital. Importantly, the facility will play a central role in MSU's new Associate of Applied Science (AAS) veterinary nursing program, a distance-learning pathway designed to prepare licensed veterinary technicians without requiring students to relocate to East Lansing. Launching in 2027 with an initial enrollment target of 50 students annually, the program has plans to expand to 500 students annually over the following years. Students from across Michigan will complete academic coursework online and gain small animal clinical experience in veterinary practices near their homes. They will then travel to MSU for weekend- or week-long intensive hands-on large animal training at the hospital. The new facility will provide essential training space to support this growth, which is constrained at the current hospital, expanding access to veterinary nursing education for individuals who cannot leave their communities while helping address Michigan's veterinary workforce shortages and improving access to care.

The hospital will also complement MSU's broader efforts to strengthen Michigan's large animal and rural veterinary workforce, including the Future Large Animal Medical Exposure (FLAME) program and the Michigan Rural Veterinary Workforce Model developed in partnership with the Michigan Department of Agriculture and Rural Development (MDARD). Together with community-based clinical experiences, these initiatives will connect students with the opportunities and needs of veterinary practice throughout Michigan.

Research and Innovation

Clinical faculty, residents, graduate students, and collaborating researchers will use the Large Animal

Hospital to investigate animal diseases, evaluate emerging therapies, and develop innovative approaches to veterinary care. Research will focus on clinical studies involving large animals, including trials of new treatments, surgical techniques, and diagnostic technologies. Dedicated research facilities will allow these investigations to proceed alongside patient care and teaching without competing for the same limited surgical and animal housing spaces.

Pioneering new therapies and diagnostic technologies. One important area of opportunity is the development of new treatments for navicular syndrome, a painful and potentially debilitating condition affecting horses. MSU researchers are pursuing opportunities to evaluate promising therapies, but existing imaging limitations and the need for anesthesia complicate clinical trials. The new hospital's standing CT and MRI capabilities will support more advanced diagnosis and monitoring, strengthening opportunities to evaluate treatment effectiveness and improve pain management. Dedicated surgical research space and animal housing will also support investigations of new procedures, medical devices, and approaches to recovery following surgery. Separating research animals from hospitalized patients will improve disease prevention while allowing studies to proceed more consistently.

The hospital will serve as a center for clinical large animal research, with basic laboratory research continuing in other MSU facilities. Collaboration with researchers in biomedical sciences, engineering, agriculture, and related disciplines will connect clinical investigations with expertise in disease mechanisms, medical technologies, and treatment development. These partnerships will support discoveries that benefit Michigan's agricultural and equine industries and, where applicable, advance understanding of conditions and treatments relevant to human health.

Statewide Engagement and Partnerships

A statewide hub for advanced care. The Large Animal Hospital serves as a statewide resource for practicing veterinarians, livestock producers, equine professionals, and animal owners throughout Michigan. Through referral relationships, veterinarians across the state can access advanced diagnostic, surgical, emergency, and specialty services for patients whose needs exceed the capabilities of their local practices. These partnerships support continuity of care, allowing MSU specialists and referring veterinarians to work together to improve patient outcomes.

Clinical leadership in Michigan's disease response. The hospital also plays an important role in protecting Michigan's animal health and agricultural industries. Together with MSU's Veterinary Diagnostic Laboratory (VDL), which serves as Michigan's official animal health laboratory, the Veterinary Medical Center is on the front lines of identifying and responding to emerging animal diseases. The hospital's clinical teams evaluate and treat affected animals, while the VDL provides specialized diagnostic testing and disease surveillance. This close collaboration helps recognize emerging threats, inform veterinarians and producers, and supports efforts to protect animal health across the state.

Advancing professional practice across Michigan. The hospital extends its expertise through continuing education and professional development for practicing veterinarians. MSU currently hosts an annual continuing education program for equine practitioners, providing updates on clinical advances and approaches to diagnosis and treatment. However, limited access to dedicated teaching facilities has restricted both the frequency of these programs and opportunities for hands-on instruction. The new hospital's teaching spaces and clinical facilities will support more frequent educational offerings and practical training opportunities, helping veterinarians apply emerging knowledge and techniques in their own practices.

Addressing veterinary shortages through state partnerships. These relationships also support Michigan's efforts to strengthen its veterinary workforce. Through partnerships with the Michigan Veterinary Medical Association, the Michigan Department of Agriculture and Rural Development, and veterinary practices across the state, MSU is developing innovative approaches to preparing and retaining veterinarians in rural communities. The Large Animal Hospital will complement these efforts by providing advanced clinical training and connecting students with the needs of veterinary practice throughout Michigan.

Please provide detailed, yet appropriately concise responses to the following questions that will enhance our understanding of the requested project:

1. How does the project support Michigan's talent enhancement, job creation and economic growth initiatives on a local, regional and/or statewide basis?

The proposed Large Animal Hospital will strengthen Michigan's veterinary workforce and support the farms, businesses, and communities that depend on animal health. By investing in the clinical facilities where students learn, veterinarians refer complex cases, and researchers develop improved treatments, Michigan will strengthen its future veterinary workforce and the animal industries it serves.

Preparing Veterinary Professionals to Serve Michigan's Communities

Michigan faces significant veterinary workforce challenges, particularly in rural and agricultural communities. In 2026, the U.S. Department of Agriculture identified six veterinary shortage situations in Michigan, reflecting unmet needs for veterinary services in rural and livestock-producing regions. These shortages affect access to care for the animals that producers and rural businesses depend on.

Investing in statewide agricultural and animal care resilience. As Michigan's only college of veterinary medicine, MSU plays a central role in preparing the professionals needed to address these challenges. All Doctor of Veterinary Medicine (DVM) students complete a required large animal medicine and surgery rotation, gaining practical experience with horses, livestock, and other farm animals. However, limited clinical and teaching space currently constrain opportunities for hands-on learning. The proposed hospital will provide dedicated instructional areas, appropriate animal handling facilities, and expanded clinical training capacity, allowing more students to develop essential skills while supporting safe patient care.

The investment is part of a broader effort to build sustainable pathways into large animal and rural veterinary careers. MSU's Future Large Animal Medical Exposure (FLAME) program provides early exposure to large animal medicine, while the Michigan Rural Veterinary Workforce Model, developed in partnership with the Michigan Department of Agriculture and Rural Development (MDARD) and informed by veterinary practitioners statewide, will connect students with rural practice experiences and support their transition into rural careers. In parallel, MSU is exploring additional strategies to recruit students interested in large animal and rural practice, including targeted scholarship opportunities to help reduce financial barriers. Together, these efforts aim to attract students interested in serving Michigan's agricultural and rural communities, provide meaningful hands-on clinical experiences in the new hospital, and strengthen their commitment to pursuing and sustaining careers in large animal and rural veterinary practice.

Supporting Growth in Michigan's Veterinary Nursing Workforce

MSU's veterinary nursing program prepares graduates to become Licensed Veterinary Technicians (LVTs), essential members of veterinary healthcare teams. The program is among the nation's leading programs, with graduates consistently achieving board examination pass rates of approximately 98–100%, compared with a national average of approximately 70%. MSU currently enrolls approximately 50 veterinary nursing students per entering class, preparing graduates with essential skills in anesthesia, emergency care, diagnostic procedures, and patient management. Michigan's need for these professionals continues to grow, with state employment projections anticipating approximately 390 annual openings for veterinary technicians between 2024 and 2034.

Expanding hospital capacity and new educational programs to secure the Michigan's veterinary workforce pipeline. To help address this need, MSU is launching an innovative Associate of Applied Science (AAS) veterinary nursing program in 2027, initially targeting 50 students annually, with plans to expand toward 500 students per year. Designed for individuals who cannot relocate to East Lansing, the program will combine online coursework with small animal clinical training at veterinary practices in students' home communities. Students will then travel to MSU for intensive, hands-on large animal training. This

approach will expand access to veterinary nursing education across Michigan while helping practices develop and retain skilled professionals in their communities.

The new Large Animal Hospital will provide critical training capacity to support this expansion. Dedicated teaching areas, species-appropriate animal handling facilities, and improved clinical spaces will allow MSU to accommodate larger groups of students during hands-on training intensives without competing as directly with daily patient care for limited space.

In parallel, MSU is working with the Michigan Veterinary Medical Association to examine veterinary team members' scope of practice and identify opportunities for LVTs to work to the full extent of their education, training, and licensure. Making better use of the expertise of LVTs allows veterinarians to focus on responsibilities requiring a DVM, helping practices care for more patients with their existing teams. Together, expanded educational access and more effective use of veterinary professionals represent a coordinated strategy to address workforce shortages, strengthen veterinary practices, and improve access to veterinary care throughout Michigan.

Supporting Michigan's Agricultural and Equine Businesses

As Michigan's only 24/7 tertiary care facility for large animals, MSU's Large Animal Hospital provides advanced emergency, surgical, and specialty care for horses, livestock, and other farm animals. The hospital serves as a critical referral resource for veterinarians throughout Michigan, connecting local practices with specialized expertise and treatment that may not be available in their communities. Across its small and large animal services, MSU's Veterinary Medical Center serves clients from all 83 Michigan counties, reflecting the statewide reach of its clinical programs. These services are particularly important to agricultural producers and equine businesses whose livelihoods depend on animal health and productivity.

For example, a valuable breeding horse requiring emergency surgery or a livestock animal experiencing a complicated birth may need advanced treatment beyond the capabilities of a local veterinary practice. Timely access to specialized care can help preserve valuable animals, protect producers' investments, and reduce the economic consequences of illness or injury. The proposed new hospital will strengthen these services through immediate access to integrated emergency, surgical, and intensive care facilities – which are located across a parking lot from the current hospital; advanced diagnostic imaging; and safer patient handling and recovery areas than those that can be provided in the current hospital, which lacks the adjacent outdoor spaces and indoor arena space.

The hospital also contributes to the health of Michigan's agricultural industries through its close relationship with MSU's Veterinary Diagnostic Laboratory (VDL), the state's official animal health laboratory. By connecting clinical observations made at the hospital with diagnostic testing at the VDL, these resources help identify and respond to emerging animal diseases, supporting veterinarians and producers in protecting animal health and limiting the potential economic consequences of disease outbreaks.

Equally important, the hospital serves as a training ground for the next generation of veterinarians and licensed veterinary technicians who will care for animals in these Michigan communities. By combining advanced clinical care with hands-on education, MSU is helping sustain access to veterinary expertise and strengthen the long-term vitality of Michigan's agricultural and equine industries.

2. How does the project enhance the core academic, development of critical skill degrees, and/or research mission of the institution?

The proposed Large Animal Hospital will advance Michigan State University's core academic and research mission by strengthening the connection between patient care, clinical education, and scientific discovery. Every Doctor of Veterinary Medicine (DVM) student is required to complete a large animal medicine and surgery rotation in the hospital. The hospital also provides training for veterinary nursing students and advanced trainees, while supporting clinical research that improves the diagnosis, treatment, and prevention of animal diseases. The new facility will provide the modern clinical, teaching, and research environments needed to strengthen these interconnected activities.

Strengthening Clinical Education

Doctor of Veterinary Medicine. MSU currently enrolls approximately 460 DVM students and 150 veterinary nursing students across all years of its programs, with approximately eight residents pursuing specialty board certification at any given time. During their required large animal medicine and surgery rotation, DVM students work alongside faculty, specialists, residents, and experienced veterinary nurses to evaluate, diagnose, and treat horses, livestock, and other farm animals. These experiences develop clinical judgment, technical skills, and confidence needed to provide veterinary care.

The existing hospital's outdated animal housing and handling facilities, limited examination space, and lack of dedicated teaching areas constrain these learning opportunities. Students often observe clinicians adapting stalls and equipment to safely manage patients rather than learning in facilities designed for contemporary veterinary practice. The new hospital will provide species-appropriate handling systems, dedicated spaces where students can practice clinical techniques before working with client-owned animals, and improved examination, surgical, and critical care facilities. Adjacent paddocks and outdoor animal facilities will also support hands-on instruction in animal handling, movement, and patient recovery. Together, these improvements will create safer, more consistent opportunities for supervised clinical learning while accommodating additional students.

Veterinary Nursing Education. The hospital will also play an essential role in expanding MSU's veterinary nursing education, which prepares graduates to become Licensed Veterinary Technicians (LVTs). MSU's new Associate of Applied Science (AAS) veterinary nursing program will launch in 2027 with an initial target of 50 students annually and plans to expand toward 500 students annually over the following years. Designed for individuals who cannot relocate to East Lansing, the program will combine online coursework with small animal clinical training at veterinary practices throughout Michigan. Students will then come to MSU for intensive hands-on large animal training. The new hospital's dedicated teaching spaces and animal handling facilities will provide critical training capacity for this statewide educational model, expanding access to veterinary nursing education while supporting the College's existing clinical teaching responsibilities.

Advancing Clinical Research and Discovery

Expanded space and dedicated research facilities. The Large Animal Hospital is also an important setting for clinical research, where challenges encountered in caring for patients lead to investigations of new diagnostic methods, treatments, and approaches to recovery. Research expenditures across MSU's College of Veterinary Medicine have increased by 88% over the past five years, reflecting the College's growing research activity. However, limited space, inadequate separation of research animals from hospitalized patients, and competition for surgical and treatment facilities restrict the clinical studies that can be undertaken.

One example is research into navicular syndrome, a painful and sometimes debilitating condition affecting horses' feet. Conventional X-rays and ultrasound cannot fully characterize the disease, making advanced imaging important for understanding its progression and evaluating promising treatments. MSU researchers have opportunities to pursue clinical trials of new therapies, but current imaging approaches can require general anesthesia, which carries additional risks for large animals and discouraging some owners from enrolling their horses. The new hospital's standing CT will provide more advanced diagnostic options, including the ability to image appropriate patients while standing under light sedation, reducing risks and making participation in clinical research safer and more accessible. These capabilities will strengthen opportunities to evaluate new treatments, improve pain management, and advance care for horses with complex orthopedic conditions.

The new hospital will also provide dedicated surgical research facilities and animal holding areas, addressing a major limitation of the existing facility. Today, research projects must compete with teaching and patient care for surgical space and animal housing, delaying studies, and sometimes preventing them altogether. Purpose-built research areas will allow investigators to conduct studies more consistently while maintaining appropriate separation between research animals and hospitalized patients. These facilities will support investigations of new surgical techniques, medical devices, and treatments, as well as studies of recovery following surgery.

For example, MSU researchers are interested in evaluating rehabilitation approaches that help large animals

regain strength, movement, and physical fitness following surgery. The existing hospital lacks adequate space for the equipment and animal housing needed to conduct these studies. Improved research and animal evaluation facilities will create opportunities to investigate which rehabilitation approaches produce better outcomes, translating discoveries into improved care for future patients.

Connecting Animal Health Research to Broader Scientific Discovery

The hospital's clinical research capabilities will also support MSU's broader One Health mission by creating opportunities for discoveries relevant to both animal and human medicine. Research involving naturally occurring diseases, surgical techniques, medical devices, and recovery from injury can contribute knowledge that extends beyond veterinary practice.

For example, studies of neurological injuries and changes in movement in large animals can help researchers understand how injuries affect mobility and how treatments may improve recovery. Dedicated surgical research and animal holding facilities, together with appropriate spaces for evaluating movement, will support these investigations. Researchers based elsewhere at MSU, including those working in biomedical sciences, engineering, agriculture, and human health, will be able to collaborate with the hospital's clinical researchers, connecting specialized expertise with opportunities for investigation involving large animals.

The hospital will also work closely with MSU's Veterinary Diagnostic Laboratory (VDL), Michigan's official animal health laboratory, to connect clinical observations with diagnostic testing and investigations of emerging animal diseases. These collaborations reflect the College's role in advancing scientific understanding of diseases that affect animal health and, in some cases, have broader implications for human and environmental health.

Extending Education and Discovery Across Michigan

As a land-grant university, MSU has a responsibility to ensure that advances in education and research benefit communities throughout Michigan. The Large Animal Hospital fulfills this mission by sharing clinical expertise and research findings with practicing veterinarians, agricultural producers, and equine professionals.

For example, MSU hosts an annual continuing education program for equine practitioners, providing opportunities to learn about advances in diagnosis, treatment, and clinical care. Limited access to dedicated teaching facilities has constrained the frequency of these programs and the ability to offer hands-on instruction. The new hospital's teaching spaces, diagnostic capabilities, and animal handling facilities will support expanded practical learning opportunities, helping veterinary professionals apply new knowledge and techniques in their own practices.

By strengthening required clinical education, expanding access to veterinary nursing training, supporting more sophisticated clinical research, and sharing discoveries with veterinary professionals statewide, the proposed hospital will enhance MSU's academic and research mission while extending the benefits of its expertise to the communities it serves.

3. Describe how the project will address, incorporate, or enhance the efforts, policies, or goals to grow and expand opportunities for enrollment for the academic programs within the scope of the project or as a component of your institution and campus at large?

Veterinary nursing education and enrollment. The proposed Large Animal Hospital will support MSU's efforts to expand access to veterinary education, particularly through significant planned growth in veterinary nursing enrollment. The College currently enrolls approximately 50 veterinary nursing students per entering class and is launching a new Associate of Applied Science (AAS) veterinary nursing program in 2027, with an initial target of 50 students annually and plans to grow to 500 annually within 10 years. This expansion will help address Michigan's shortage of Licensed Veterinary Technicians (LVTs), who are essential members of veterinary healthcare teams.

The AAS program is specifically designed to remove geographic barriers to veterinary nursing education. Students who cannot relocate to East Lansing will complete academic coursework online and small animal

clinical training at veterinary practices in their home communities, then travel to MSU for intensive hands-on large animal instruction. The existing hospital's limited teaching space and outdated animal handling facilities constrain the number of students who can participate in these experiences simultaneously. The proposed hospital will provide dedicated teaching areas, appropriately designed animal housing and handling facilities, and spaces where students can practice clinical skills before working with patients. These improvements will allow MSU to accommodate larger groups of students during intensive training sessions while maintaining the quality of instruction and essential clinical services.

The College is aligning its faculty resources and facility planning with these enrollment goals. The College plans three additional veterinary nursing faculty positions for 2027, with instructional staffing expected to grow proportionately as enrollment increases. Based on the current feasibility study, MSU anticipates that the new Large Animal Hospital could be completed in approximately four years, from design through opening. This timeline would allow the AAS program to launch using existing resources while positioning the new hospital to support its substantial expansion over the following decade.

Building the pipeline for large animal and rural veterinary care. The new hospital will also strengthen opportunities to recruit students into veterinary medicine, particularly those interested in large animal and rural practice. Through initiatives such as MSU's Future Large Animal Medical Exposure (FLAME) program, undergraduate students can explore careers in large animal medicine and gain exposure to species and clinical experiences they may not otherwise encounter. The new hospital's dedicated teaching areas and safer animal handling facilities will provide a more appropriate environment for these exploratory experiences, supporting efforts to introduce prospective students to veterinary careers. In parallel, MSU is exploring additional recruitment strategies, including scholarship opportunities for students interested in large animal and rural veterinary practices.

MSU currently enrolls approximately 115 Doctor of Veterinary Medicine (DVM) students per entering class. Although the project does not depend on an immediate increase in DVM enrollment, the proposed facility design will provide flexibility to accommodate future increases in class size. Every DVM student must complete a large animal medicine and surgery rotation, making the hospital an essential component of their education. Modern clinical facilities, dedicated teaching spaces, and improved access to large animal patients will strengthen the preparation of all students while creating opportunities to recruit and support more students pursuing large animal and rural careers. The proposed hospital will also provide greater flexibility to accommodate evolving educational needs and potential future enrollment growth.

Together, these investments will expand access to veterinary nursing education across Michigan, strengthen recruitment into large animal and rural veterinary medicine, and provide the clinical training capacity needed to prepare future veterinary professionals for the communities they will serve.

4. Is the requested project focused on a single, stand-alone facility? If no, please explain.

Yes, the requested project is focused on a single, stand-alone facility of approximately 124,000 gross square feet for a new Large Animal Hospital, creating modern, state-of-the-art space for patient care, education, and research.

5. How does the project support investment in or adaptive re-purposing of existing facilities and infrastructure?

The proposed Large Animal Hospital is part of MSU's broader strategy for responsible investment in its existing facilities. The university's comprehensive feasibility and precinct planning study evaluated renovation, continued reinvestment, and replacement, including alternatives that retain and renovate existing Small Animal Hospital, educational, and research facilities. Both planning approaches included the construction of a new Large Animal Hospital, reflecting the fundamental limitations of the current facility. This strategy supports continued investment in buildings that can effectively serve university needs while replacing facilities that cannot reasonably accommodate their required functions.

Constructed in 1965, the existing Large Animal Hospital has significant physical and operational constraints that renovation cannot adequately resolve. Its specialized underground manure management system is connected to existing stalls and wards, preventing meaningful changes to their configuration or

improvements in patient movement and clinical operations. The constrained site also lacks space for outdoor paddocks, recovery areas, and safer animal access. Furthermore, major renovations to the manure management system and animal housing areas would require suspending hospital operations, interrupting the emergency, surgical, and specialty services that Michigan's animal owners, agricultural producers, and referring veterinarians depend on. Constructing a new hospital at a separate location will allow these essential services, along with clinical education and research, to continue throughout construction.

MSU's facilities planning has identified approximately \$140 million in projected capital renewal needs across the existing Veterinary Medical Center over the next 10 years, of which the Large Animal Hospital is a part of. About 20% of those capital renewal needs are attributable to the Large Animal Hospital. This figure represents anticipated renewal investments across the multiple connected facilities that make up the Veterinary Medical Complex, rather than the deferred maintenance of the Large Animal Hospital alone. Although continued reinvestment could address certain building deficiencies, it would not resolve the hospital's underlying physical and operational limitations including functional obsolescence and inadequate square feet. Replacement is therefore necessary to provide the facilities required for modern large animal veterinary care.

Following relocation, demolition of the existing Large Animal Hospital is anticipated. The decision on anticipated demolition and timing will be addressed separately from the proposed new construction of the Large Animal Hospital and within the context of overall university capital and space planning. The disposition of the associated Pegasus Critical Care Center and McPhail Equine Performance Center also remains to be determined. Potential alternative uses of these facilities have not yet been formally evaluated, and decisions regarding demolition, reuse, and future redevelopment will be addressed through subsequent capital and space planning guided by the MSU Strategic Plan and MSU's Vision 2050 Facilities and Land Use Plan. Demolition costs are not included in the proposed \$290 million project budget.

The proposed hospital will require new utility connections and associated infrastructure to serve its location near Hagadorn and Mount Hope Roads. These improvements, including connections for steam, chilled water, electrical service, and domestic water, are incorporated into the planning for a fully functioning hospital. While the project requires investment in new infrastructure, the selected location provides the space needed for safe animal movement, supporting outdoor facilities, and future operational needs that cannot be accommodated at the existing site.

6. Does the project address or mitigate any current health/safety deficiencies relative to existing facilities? If yes, please explain.

The existing Large Animal Hospital, originally constructed in 1965, was designed for an earlier era of veterinary medicine. MSU's recent feasibility study identified significant functional and safety deficiencies, including improperly sized stalls and handling chutes, insufficient examination and treatment spaces, limitations in isolation capacity, and inadequate clinical infrastructure. These conditions make it difficult to safely manage large animal patients and deliver advanced veterinary care.

The proposed hospital will address these deficiencies through purpose-built environments designed to improve the safety of patients, students, faculty, and veterinary professionals. Appropriately sized stalls, modern animal handling facilities, dedicated treatment areas, and improved patient circulation will reduce risks associated with moving, restraining, and treating large animals. Dedicated trailer access and unloading areas, together with secure outdoor paddocks and grazing spaces, will provide safer environments for transporting, handling, exercising, and caring for patients.

Dedicated isolation facilities, improved separation of patient populations, and contemporary infection prevention and biosecurity systems will strengthen MSU's ability to manage infectious disease risks and protect animal and human health. Modern clinical infrastructure and thoughtfully designed workflows will further support safe emergency, surgical, and critical care services.

By replacing functionally obsolete facilities with a modern hospital designed specifically for large animal medicine, MSU will substantially improve patient and occupational safety while strengthening its ability to provide essential clinical services, education, and research.

7. How does the institution measure utilization of its existing facilities, and how does it compare relative to established benchmarks for education facilities? How does the project help to improve the utilization of existing space and infrastructure, or conversely how does current utilization support the need for additional space and infrastructure?

Michigan State University evaluates facility utilization through various methods that include a robust space inventory, allocation history, facility condition assessments, functional needs assessment and space planning, analysis of metrics that measure how facilities support academic, research and clinical needs. These data and evaluations help identify opportunities to improve space efficiency, optimize existing infrastructure, and align facility resources with current and projected programmatic needs.

Peer Benchmarking and Analysis

For planning purposes including utilization analysis, MSU has developed guidelines with external experts for office, office support, and research spaces. Instructional space decisions are informed by enrollment, contact hours, pedagogy, and instructional modality. Given the specialized nature of the Large Animal Hospital, these guidelines will be implemented as appropriate. Peer benchmarking and external veterinary facility expertise provided by Clark and Enerson, Teconomy Partners, LLC and Fishbeck have informed the proposed facility's design and square footage.

For the proposed Large Animal Hospital, MSU benchmarked existing facilities against peer institutions including Colorado State University, UC Davis, The Ohio State University, the University of Minnesota and Purdue University. Comparisons considered clinical capacity, annual caseload, specialized treatment and teaching spaces, facility condition and supporting infrastructure. Benchmarking of peer institutions caseloads by services, coupled with the current facilities deficiencies and identified gaps in services, have informed the planning for new construction including additional square footage. Lessons learned from benchmarked schools also confirm that linking animal health and human health under MSU's One Health initiative will be a transformational differentiator in MSU's strategic facilities programming and planning.

The proposed project provides an opportunity to align the university facilities with the evolving needs of veterinary education and clinical care. It is intended to address the limitations of the existing facilities, strengthen clinical and instructional capabilities, improve operational efficiency, and accommodate future demand. Additionally, the project will help position MSU to meet the needs of Michigan's agricultural industry by preparing future veterinarians and supporting the long-term health, sustainability and productivity of the state's animal agricultural sector.

Improving Utilization

The current Large Animal Hospital was purpose-built in 1965 and due to functional limitations cannot reasonably be adapted, limiting opportunities to improve utilization. Coupled with substantial projected deferred maintenance needs of \$140 million over the next decade for the Veterinary Medical Center, of which the Large Animal Hospital accounts for 20% of the total square footage, anticipated demolition of the existing structure and construction of a new Large Animal Hospital will both improve utilization and reduce the deferred maintenance backlog.

Continuous Monitoring and Peer Comparisons

MSU uses a quantitative metric, research expenditures per square foot of research space to measure the productivity and utilization of research spaces. Since implementing these metrics, MSU has achieved a 35% improvement in research productivity, measured by research expenditures per square foot. Space utilization is annually reviewed and opportunities to improve through changes in course scheduling policy, right-sizing of the instructional pool, alignment of enrollment and course modalities are necessary to ensure good stewardship of these assets. Similarly, office and office support space utilization is guided by updated space allocation guidelines that reflect the range of modern work modalities. MSU employs an integrated and interdisciplinary approach across the various programmatic areas and space types that supersedes unit space allocations to ensure highest and best use of its built environment.

MSU regularly benchmarks space utilization against peer institutions using data from the National Science

Foundation and the Higher Education Facilities Management Alliance This data-driven approach to space utilization ensures that MSU makes the most of its existing resources while planning for the future needs of its growing and emerging programs, addressing functional obsolescence and deferred capital renewal.

8. How does the institution intend to integrate sustainable design principles to enhance the efficiency and operations of the facility?

The Large Animal Hospital will be designed to integrate innovative sustainability principles that enhance operational efficiency, reduce environmental impact, and contribute to MSU's long-term climate neutrality goals. Key sustainability features will be:

- **LEED Silver:** The hospital will follow MSU's design standards and be designed to a minimum of LEED Silver standards, demonstrating MSU's continued commitment to sustainability in line with the university's 2030 Strategic Plan and its 2050 climate neutrality targets. This will ensure the facility incorporates energy-efficient systems, sustainable materials, and innovative design elements.
- **Commitment to Sustainable Health:** As part of the 2030 Strategic Plan, the hospital will support MSU's goal of sustainable health in its physical environment, ensuring that spaces promote health and wellness for students, faculty, staff, patients and the wider community served by the hospital.
- **Energy Efficiency and Environmental Impact:** The hospital will integrate energy management systems, water conservation technologies, and sustainable landscaping to minimize its environmental footprint while optimizing operational efficiency. These systems align with MSU's broader goals of reducing energy consumption and promoting environmental stewardship.

MSU's sustainability principles will mark the Large Animal Hospital as a symbol of MSU's continued commitment to sustainable health, environmental responsibility, and climate action, and provide a healthy and vibrant resource for its community and the state.

9. Are match resources currently available for the project? If yes, what is the source of the match resources? If no, identify the intended source and the estimated timeline for securing said resources.

Yes. The university match will be from MSU capital and/or bonding paid for from college/hospital revenue, university general fund revenue and philanthropic gifts.

10. If authorized for construction, the state typically provides a maximum of 75% of the total cost for university projects and 50% of the total cost for community college projects. Does the institution intend to commit additional resources that would reduce the state share from the amounts indicated? If so, by what amount?

MSU requests the maximum allowable state investment for this critical statewide resource through the capital outlay process. The university understands current practice to mean that while the state may provide a maximum of 75% for the total cost for university projects, the maximum dollar contribution has been \$30 million. That current practice would mean the state share for this project would be \$30 million (10.3%) of the total project cost.

Should the state consider funding a higher share of the project cost through capital outlay or other state appropriations, Michigan State University will be able to use institutional resources to fund other high-priority capital facility needs as submitted in the 5-year capital list. Should the state authorization be less than the \$30 million, the university is open to funding a higher share of the project cost but doing so would require the university to reprioritize other high-priority needs in order to contribute a higher amount.

11. Will the completed project increase operating costs to the institution? If yes, please provide an estimated cost (annually, and over a five-year period) and indicate whether the institution has identified available funds to support the additional cost.

Building operating costs for utilities, custodial, landscape services, and maintenance for the facility are

estimated at approximately \$992,000 annually, or \$4,960,000 over a 5-year period, based on current dollars and gross square footage. These operating costs will be paid for by the general fund. Building operating costs for the newly constructed Large Animal Hospital will be offset by the anticipated demolition of the current Large Animal Hospital.

Additional operating costs for staffing and hospital services will be paid for by revenue generated by existing hospital operations that would relocate to the newly constructed hospital.

12. What impact, if any, will the project have on tuition costs?

This project will not have any direct impact on tuition costs.

13. If this project is not authorized, what are the impacts to the institution and its students?

Constrained student participation and restricted clinical practice opportunities. If this project is not authorized, MSU will continue educating veterinary and veterinary nursing students in a hospital whose outdated facilities limit opportunities for hands-on clinical training. All Doctor of Veterinary Medicine (DVM) students are required to complete a large animal medicine and surgery rotation, yet the existing hospital's limited examination and treatment space and inadequate animal handling facilities constrain how many students can safely participate in clinical activities. For example, stalls and handling equipment designed decades ago are poorly suited for some of the animals treated today, requiring clinicians to use temporary fencing and other workarounds. Rather than consistently learning in spaces designed for modern veterinary practice, students must work around these limitations alongside their instructors. The lack of dedicated teaching areas also restricts opportunities to practice clinical techniques before working with client-owned patients.

Limited opportunity to expand veterinary nursing statewide. These constraints have consequences for MSU's ability to expand educational opportunities and address Michigan's veterinary workforce shortages. The College is launching a new Associate of Applied Science (AAS) veterinary nursing program in 2027, with plans to grow from an initial 50 students annually toward 500 within 10 years. Designed for students throughout Michigan who cannot relocate to East Lansing, the program will rely on intensive hands-on large animal training at MSU to complement online coursework and clinical experience in students' home communities. Without the new hospital's dedicated teaching spaces and appropriate animal handling facilities, MSU's ability to accommodate increasing numbers of students while maintaining required DVM clinical training and essential patient care would remain significantly constrained. Not undertaking the project would also limit opportunities to strengthen recruitment and preparation of students interested in large animal and rural veterinary careers.

Outreach and continuing education will continue to compete for space. MSU's ability to expand outreach opportunities, a core component of the institution's mission, will also be constrained. The continuing education program for equine practitioners hosted at MSU will continue to be constrained in frequency of offerings due to the limited access to dedicated teaching facilities. The new hospital's teaching spaces, diagnostic capabilities, and animal handling facilities will support expanded practical learning opportunities, helping veterinary professionals apply new knowledge and techniques in their own practices.

Continued reinvestment in aging facilities. MSU would also face the growing challenge of maintaining Michigan's only 24/7 tertiary care facility for large animals in a building that cannot be meaningfully reconfigured to meet modern clinical needs. The specialized underground manure management system prevents changes to the existing wards and animal housing areas, while the constrained site cannot accommodate essential outdoor paddocks, recovery spaces, or safer animal access. Major renovations would require suspending emergency, surgical, and specialty services that veterinarians and animal owners across Michigan depend upon. Continued investment in aging infrastructure could sustain operations in the near term but would not resolve these fundamental limitations or provide the clinical, teaching, and research facilities needed for the future. For example, capital renewal HVAC improvements estimated at \$17 million for the Veterinary Medical Center will need to be prioritized in order to sustain operations at the current facility but will not address identified functional limitations that are currently constraining the ability to respond to the growth opportunities identified by MSU and the State of Michigan. Additionally, capital renewal funding spent

investing in a functionally obsolete facility reduces the available capital renewal funding for other high-priority investment needs.

Without state participation, MSU will be limited in its ability to fund the project without significant delays or reprioritization of other high-priority academic facilities projects. Non-authorization would mean more than postponing construction. It would leave MSU dependent on an increasingly difficult-to-maintain hospital, restrict the clinical training capacity needed to support enrollment growth, and prolong limitations on the education of future veterinarians and licensed veterinary technicians. For Michigan, these consequences would extend beyond campus, affecting MSU's ability to expand the pipeline of veterinary professionals prepared to serve its agricultural industries, rural communities, and animal owners.

14. What alternatives to this project were considered? Why is the requested project preferable to those alternatives?

MSU evaluated continued reinvestment, renovation and selective replacement, and new construction at alternative campus locations through a comprehensive feasibility and precinct study which included programmatic review and market analysis. The evaluation also included facility condition assessments, clinical and educational space analyses, peer benchmarking, and stakeholder engagement. The broader development approaches evaluated in the precinct study included construction of a new Large Animal Hospital, reflecting the significant limitations of the existing facility.

Alternatives considered and principal findings:

- **Continued reinvestment in the existing hospital.** Maintaining the current facility would require ongoing expenditures on aging infrastructure while leaving fundamental clinical and educational limitations unresolved. Existing stalls and handling equipment are poorly suited to the diversity of animals treated today; examination and treatment spaces are inadequate, and isolation facilities do not provide the separation needed for effective infectious disease control. Continued repairs could sustain operations in the near term but would not provide the facilities necessary for modern emergency, surgical, and specialty care or the additional teaching capacity needed to support MSU's educational programs – currently or in the future to meet Michigan's growing veterinary workforce needs.
- **Renovation and selective replacement.** MSU examined opportunities to renovate existing facilities while selectively replacing those that could not adequately support their intended functions. However, the Large Animal Hospital's specialized underground manure management system is connected to the existing wards and stalls, preventing meaningful changes to the hospital's layout and patient movement. Major renovations would require extensive demolition and suspension of hospital operations, interrupting Michigan's only 24/7 tertiary care services for large animals, as well as required student clinical training. The constrained site also lacks space for outdoor paddocks, recovery areas, and safer animal access. Consequently, even substantial renovation would leave critical limitations unresolved. Selective reinvestment in the foreseeable future remains a reasonable strategy for other College facilities that can continue serving their intended functions.
- **New construction at alternative campus locations.** The planning process considered a Large Animal Hospital located near MSU's Veterinary Diagnostic Laboratory (VDL), with other College functions remaining at the current campus location, as well as development near the northwest corner of Hagadorn and Mount Hope Roads. The Hagadorn and Mount Hope location emerged as the preferred site, offering space for the hospital, outdoor animal facilities, safe patient and trailer access, parking, and future development. The Hagadorn and Mount Hope site also offers proximity to current Health Sciences teaching and research facilities, enabling the further development of a One Health neighborhood where resources can be shared and further interdisciplinary facilities can be created.
- **A new Large Animal Hospital addresses limitations that continued maintenance or renovation cannot resolve.** A purpose-built hospital will bring emergency, surgical, and critical care services together; provide safer animal housing and handling facilities; improve isolation and infectious disease control; and create dedicated spaces for clinical education and research. Construction at a

separate location will also allow MSU to maintain essential hospital services and required student training throughout development.

MSU's facilities condition assessments have identified approximately \$140 million in projected capital renewal needs over the next ten years for the Veterinary Medical Center, of which the Large Animal Hospital accounts for 20% of the total square footage. This figure represents anticipated investment across multiple facilities to address capital renewal but not functional obsolescence or the cost of renovating the Large Animal Hospital.

The new Large Animal Hospital will function independently to support Michigan's need for advanced veterinary care, clinical education, and research, while its proximity to other health sciences teaching and research facilities and capacity for future development will support the broader MSU One Health initiative.