Five-Year Master Plan University of Michigan-Ann Arbor



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FIVE-YEAR MASTER PLAN UNIVERSITY OF MICHIGAN-ANN ARBOR FY2015

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Section I Mission Statement

MISSION STATEMENT

The mission of the University of Michigan is to serve the people of Michigan and the world through preeminence in creating, communicating, preserving and applying knowledge, art, and academic values, and in developing leaders and citizens who will challenge the present and enrich the future.

VISION STATEMENT

As the University of Michigan prepares to embark on its third century, we fully embrace the legacy bestowed upon us by President James B. Angell in our first century. We are proud to offer "an uncommon education for the common man."

We are a community of learners. We serve our multiple constituents by providing access to and participation in scholarly and creative endeavors on a vast scale. Our academic research enterprise affects the world. The university is defined by a culture of interdisciplinary teaching and research, coupled with academic rigor. We encourage our students, faculty, and staff to transcend disciplinary boundaries by tackling complex and vexing problems facing modern societies at local, national, and global levels.

We endorse and promote creativity in its many facets. We recognize the arts as a human essential and a foundation that helps to define our future. We create new knowledge and share the joy of discovery, and we see information technology as a powerful means for broadening access to knowledge and exchanging ideas.

We draw from study and experience to prepare our students for leadership in a wide range of social endeavors, including government, law, education, medicine and business, reflecting the university's many roles in contributing to good design and decision making within major domestic and international institutions.

We celebrate and promote diversity in all its forms, seeking the understanding and perspective that distinct life experiences bring. We proclaim ourselves a scholarly community in which ideas may be freely expressed and challenged, and all people are welcomed, respected, and nurtured in their academic and social development.

We are committed to providing for our students and faculty international learning and teaching experiences that will prepare them for a rapidly changing global community. The university encourages intellectual and cultural exchange in other countries, and programs that deeply engage scholars from disparate areas of the globe. We support and promote student, faculty, and staff immersion in local and national communities via service, learning, and leadership endeavors. We nurture lifelong relationships with alumni who span the globe.

We advance health care through discovery and practice. We deliver clinical services to people within our state and the world, educate future generations of health care professionals, conduct basic research in fundamental processes of life, and vigorously advance research on the mechanisms, detection and treatment of a spectrum of human diseases. The university champions fitness, disease prevention, and policy research to advance health, quality of life, and longevity of our own community, the nation, and the globe.

We stimulate economic growth and development in Michigan and beyond. The university engages in productive partnerships among academe, industry, and government to sustain and grow a vigorous and dynamic economy. University students, faculty, and staff embody and advance innovative attitudes and entrepreneurial spirit.

We strive to be an exemplary employer and a positive influence in our community. We provide an environment where all employees have opportunities to develop their potential, and where there is a shared passion for excellence and a commitment to respect for one another.

We dedicate ourselves to ethical and responsible stewardship of financial, physical and environmental resources. We look for tools and strategies to create and enhance sustainable practices in all facets of operations and seek to lead in the global quest for a sustainable future.

We gladly accept the challenges and opportunities confronting us and understand that the University of Michigan must change, adapt and grow to meet the needs of a rapidly evolving society. We will always focus on the horizon.

Section II Instructional Programming

INSTRUCTIONAL PROGRAMMING

The University of Michigan, founded in 1817, has a history of nearly 200 years of leadership in education, innovative research, stewardship and service to the State of Michigan. The university consistently ranks in the top ten of public universities in the U.S. according to the U.S. News and World Report, and receives high marks for retention and graduation rates and for the reputation and excellence of many of the undergraduate, graduate, and professional degree programs offered by the university's 19 schools and colleges.

As a public institution, the university works hard at its mission through teaching, research, and service, set within the framework of various schools, colleges, institutes and centers and through strategic partnerships with public and private institutions in Michigan and beyond.

The following information describes various programs that support the core mission of the university and activities that will impact facility needs in the next five years.

A. Alfred Taubman College of Architecture and Urban Planning

The University of Michigan offered its first courses in architecture in 1876. The program became a department in 1913, and by 1931, the College of Architecture was established as a separate entity. Today, the college offers bachelor's, master's, and doctoral degrees in various fields, including architecture, urban planning, and urban design. In 1999, the college was renamed in honor of A. Alfred Taubman, a longtime donor and adviser to the college. In Fall 2013, the Taubman College began a new bachelor's program that directly admitted a freshman class for the first time. In response to the increase in enrollment and faculty growth and the needs for more modern instructional and studio facilities, the college has identified a need to update instructional space and create on-campus studios to replace off-campus leased space. It is anticipated that, should sufficient donor funding be identified, a small addition to the Art and Architecture Building and a modest renovation of the existing building will address the college's needs.

Penny W. Stamps School of Art & Design

Education in the arts was first offered as part of architecture and engineering studies at the university. As art evolved as a discipline, the programs were moved out of these colleges and that the School of Art & Design became an autonomous school in 1974. The school was renamed the Penny W. Stamps School of Art & Design in 2012 after receiving a significant donation from Penny and E. Roe Stamps. The school shares the Art and Architecture Building with the A. Alfred Taubman College of Architecture and Urban Planning, where it provides a comprehensive range of baccalaureate and graduate degree programs in art, design, and interarts performance. In 2011, in response to a pressing programmatic need for graduate student and faculty art studios and limited space within the Art and Architecture Building, the university renovated and repurposed an existing university warehouse building for this purpose. This renovation enabled the school to consolidate graduate student and faculty studios into one location and vacate off-campus leased space. The consolidation encourages

collaboration, increases operating efficiencies, and improves the school's ability to attract prospective graduate students and faculty.

Stephen M. Ross School of Business

Building on faculty and course offerings that began in the latter part of the nineteenth century, the School of Business Administration was formally established in 1924. Today, at all levels of instruction — bachelor's, master's, doctoral, and executive education — its programs consistently rank high nationally and internationally. In 2004, Stephen M. Ross made a historic gift to the school, and it was renamed in his honor. The gift supported the construction of a new Ross School of Business academic building, which opened in 2009, and provides state-of-the-art instructional and research space to support the school's core mission. Stephen M. Ross continued his generous support of the school with another historic gift in 2013. The gift, along with other gifts, will support an additional building project that will create innovative classroom, study, and student and career services spaces for the school and enable it to continue its long-standing history of excellence in business education.

School of Dentistry

Established in 1875, the School of Dentistry is one of two schools of dentistry in the State of Michigan, and the school is a nationally top-ranked program training professional dentists in oral and craniofacial research. It offers bachelor's, master's, and doctoral degrees, as well as certification and continuing education, in a variety of dental fields including dental hygiene, pediatric dentistry, orthodontics, periodontics and oral and maxillofacial pathology and surgery. The school's dedication to the health and wellness of the patient extends well beyond the research lab and classroom. The school provides clinical services to patients on campus and around the State of Michigan and is particularly dedicated to providing care to underserved, atrisk, and special needs patients. Through its community-based dental education program, the school's faculty, students, and staff are serving these patients at twenty-nine sites throughout the state in federally qualified health centers, community clinics, and in private offices. The school's facilities are in need of updating and addressing this need is a high priority for the university, therefore the university is submitting a School of Dentistry project to the state for consideration for fiscal year 2015 capital outlay funding.

School of Education

The School of Education was formally founded in 1921; however, teacher diplomas were first offered at the university in 1874 with master's and doctoral degrees added in the decades following. The school prepares students for professional careers in teaching and administration and offers advanced training and certification for researchers and practitioners at all levels of education. The school is housed in a 90-year old building (a former high school) and modest renovations have occurred over the past several years, including remodeling a large auditorium and the construction of the Brandon Professional Resource Center and Archive, completed in 2011. Made possible by a generous gift from Jan and David Brandon, this space houses digital records of professional practice and other important resources for professional study and use and offers student-focused study and collaboration areas. Over the next two years, the university will invest approximately \$13,600,000 to the highest priority infrastructure needs

and minor renovations to its existing spaces to improve the student experience and offer a better environment for instruction, collaboration, and research.

College of Engineering

Instruction in engineering first began at U-M with a class in civil engineering in 1854. The College of Engineering was established four decades later, in 1895, and has been a historical leader in emerging fields including metallurgy, naval architecture, chemical engineering, aeronautical engineering, nuclear engineering, electrical engineering, computer science and engineering, and biomedical engineering. Today, the College of Engineering is a national and international leader in delivering high-quality engineering education and research with alumni practicing throughout the globe. The college's departments and centers are housed in a number of buildings on the university's North Campus, and the college is continually making improvements to these spaces to keep up with the ever-changing fields of study and research. Currently under construction, with expected completion in 2014, is a 62,500 square foot addition to the G. G. Brown Memorial Laboratories, which will house the Center for Excellence in Nano Mechanical Science and Engineering. The existing G. G. Brown building will also receive a complete renovation to accommodate the growing needs of the Departments of Mechanical Engineering and Civil and Environmental Engineering, with construction to begin in 2014. Design for this renovation is underway as a result of the State Legislature's action in response to the Capital Outlay request for FY11 (HB-5858). This project will renovate the entire building, creating state-of-the-art academic and instructional spaces and upgrade much of the building's mechanical and life safety systems. The college recently identified the need for an engineering technology center to better support its programs and research in robotics and autonomous systems, automotive and transportation systems, and materials processing and manufacturing and to allow for more collaboration and innovation in these closely related programs. Facilities for chemical engineering and materials science and engineering are in need of updating for general improvement and to address the growth for these programs. The college is also exploring ways to provide higher quality active-learning teaching, student services, and student innovation spaces on North Campus, in coordination with the other North Campus schools. Last, in response to the governor's announcement in February 2013 that funds will be awarded in the FY15 budget to support engineering education programs, the college expects to submit a proposal.

School of Information

A formal program in library and information studies began in 1926 when the Department of Library Science was created within the College of Literature, Science, and the Arts, and the department became a fully independent school in 1969. In response to rapid changes brought on by technology, the school broadened its teaching and research significantly in the 1990s and was renamed the School of Information. The school now pursues a highly interdisciplinary approach to educate professionals who will serve as leaders in the information professions. An example of this approach is a new joint master's program in health informatics with the School of Public Health, started in 2012. The degree focuses on a human-centered approach to the development and deployment of health information technologies. In 2014, the school will embark on educating undergraduates in a formal program for the first time, with its new

Bachelor of Science in Information. The School of Information is currently housed in the North Quadrangle Residential and Academic Complex, and with its significant growth in programs and enrollment, the school is pressed for space to meet its needs. The school is currently leasing space off-campus as a short-term solution and is beginning to explore its long-term facility needs.

School of Kinesiology

Kinesiology has been part of the University of Michigan curriculum since the turn of the twentieth century. In 1984, a Division of Kinesiology was created and was designated as the School of Kinesiology in 2008. The school's programs in movement science, sports management and communication, physical education, and athletic training prepare students for careers in physical therapy, cardiac rehabilitation, athletic administration, sports law, and more. Master's and doctoral students often continue their careers in higher education or research. In 2008, a State of Michigan Capital Outlay project for the renovation and upgrade of Observatory Lodge, now the called Kinesiology Building, was completed which provided classrooms, office, and research space for the school. The project also addressed deferred maintenance, code and accessibility requirements for the building. The school has since experienced tremendous growth and now has programs distributed across five buildings. The school is exploring its long-term facility needs in response to the significant growth in enrollment, faculty hires, and research.

Law School

Since its founding in 1859, the Law School has been a national and international leader in the field of law and educational access --- in 1870 the school was the nation's second university to award a law degree to an African American and, in 1871, the first in the nation to award a law degree to a woman. The school's graduates work in every state and all over the world in business, as practitioners and professors, as legislators and members of Congress, and as distinguished civil servants and members of the judiciary. In 2011 and 2012, the Law School completed an addition to Hutchins Hall, called the Aikens Commons, and opened the new South Hall academic building. The Aikens Commons provides student study, interaction, and support spaces. The new South Hall building houses classrooms, multi-purpose and clinical spaces, and offices for faculty and administrators. In 2013, the school completed a renovation to Hutchins Hall, originally built in 1933. This project provides a more modern administrative and learning environment and improved the building infrastructure. Also in 2013, the university reopened the renovated Lawyers' Club, a residence hall that houses Law students. This significant renovation to the historic 1923 building was made possible in part by a donation from Charles T. Munger.

University Library System

The University Library system can trace its history to 1838, one year after the university's relocation to Ann Arbor, with the purchase of John James Audubon's *Birds of America* books that are still on display in the historic Harlan Hatcher Graduate Library. Much has changed since the library's founding, but its central role in advancing the university's research and teaching missions continues. Today, the University Library is one of the largest university library systems

in the United States, with 8.5 million volumes stored in various buildings around the Ann Arbor campus. The library is also a national leader in the digitization of library materials and was founding member of the HathiTrust, a coalition of nearly 70 libraries with a growing digital collection that currently exceeds 10 million volumes. In recent years, the library has begun to transform the way its buildings are used and had provided new ways for the university community to interact with its materials. In 2008, a donation from alumnus Bert Askwith enabled the University Library to renovate a portion of the Shapiro Undergraduate Library Building into high-quality study and collaboration areas with a small food service operation to meet student needs. The building now operates 24-hours a day to accommodate the demand on its spaces and collections. The University Library is also leading the U-M's efforts in online, distance, and digital education, looking at ways to enhance the effectiveness and efficiency of on-campus teaching and educational technology and at ways to expand the university's outreach to new audiences. Technological advancements in recent decades and a general shift in how students and the community interact with collection materials have significantly changed the responsibilities and operations of the library. The university continues to invest in library facilities to address infrastructure needs and to accommodate change in use and growth of digital and physical collections.

College of Literature, Science, and the Arts

The College of Literature, Science, and the Arts (LS&A), founded in 1841, was the first duly constituted college of the university. Distinguished in the humanities since its earliest years, the college became preeminent in the natural sciences during the early twentieth century and went on to become a leader in social science research. As the largest college on campus serving the greatest number of undergraduates, the college's departments and centers are housed in a number of buildings on Central Campus. The university is continually making improvements to these spaces to keep up with its ever-changing fields of study and research. As part of the university's Residential Life Initiative, the university completed a renovation in 2013 of the East Quadrangle residence hall, which is a living-learning community that houses the LS&A's Residential College and Michigan Community Scholars Program. The project renovated the 1960s administrative and instructional spaces to contemporary academic standards. LS&A's most urgent need is to provide improved research, teaching, administrative, and exhibit space for its programs in Ecology and Evolutionary Biology, Molecular, Cellular and Developmental Biology, and the Museums of Anthropology, Natural History, Paleontology, and Zoology. At this time, options for a comprehensive project are being evaluated and it is anticipated that a formal project will be identified in the near future. Related to this need, the university is scheduled to begin a renovation of the off-campus former warehouse building located on Varsity Drive in Ann Arbor, in 2014 to create a state-of-the-art storage and research facility for the collections of the programs and departments noted above. In an effort to enhance programmatic synergies and improve operational efficiencies, LS&A is also currently exploring opportunities to co-locate programs with international and interdisciplinary themes into a single facility. LS&A recently identified challenges with an aging facility that houses their language programs, several large auditoriums, and many small, outdated classrooms that will need to be addressed at some point in the future.

Medical School

Since opening its doors in 1850, the Medical School has been a leader in medical education, patient care, and biomedical research. In addition to its professional Doctor of Medicine program, the Medical School offers master's and doctoral degrees in the basic medical sciences. The school established the nation's first university-owned and operated teaching hospital and created the first departments of pharmacology and human genetics in the United States. The Medical School was among the first major American medical schools to graduate women and African Americans. The Medical School continues to renovate and modernize its instructional and research facilities as priorities dictate and funds allow. The school's expansion at the North Campus Research Complex provided the Medical School and the Health System immediate opportunities to expand translational research programs such as Emergency Medicine, and provided space for other interdisciplinary research and programs. A renovation to the Taubman Health Sciences Library is currently in design, with construction expected to begin in late 2013. The renovation will provide higher quality, contemporary teaching, clinical simulation, student services, and study space to better meet the needs of the school's academic programs.

School of Music, Theatre & Dance

One of the oldest and largest schools of music in the United States, the School of Music, Theatre & Dance ranks among the top conservatories and schools of music in the country. Degrees are offered at the bachelor's, master's, and doctoral levels in nearly all fields of music, dance, and theater. The school's academic programs are distributed across five buildings on North and Central Campuses. In 2014, the university plans to begin renovation of the Power Center for the Performing Arts, one of its signature performance venues, to update life safety and other building infrastructure. The renovation will occur in phases through 2015. The school recently announced a generous donation from William K. and Delores S. Brehm that will renovate and allow for an addition to the school's principal building, the Earl V. Moore Building. The project will include a new rehearsal hall, renovations to existing halls, new state-of-the-art classroom spaces, new student practice rooms, and improved faculty and administrative space. Construction is expected to begin in 2014. Having programs and operations distributed across five buildings on both North Campus and Central Campus continues to be a challenge, however, so the school anticipates additional facility needs in the future.

School of Natural Resources and Environment

The first program of its kind in the nation, the School of Natural Resources and Environment was founded in the late 1880s. Since its founding, the school has been a pioneer in developing a scientific understanding of ecosystems, including their conservation, management, and restoration; and trains leaders, assists in policy-making, and teaches the skills necessary to manage and conserve the earth's resources. The school offers degrees at the master's and doctoral levels, as well as certification in fields like conservation ecology, environmental informatics, GIS and modeling, environmental policy and planning, and sustainable systems. The school's home is the historic Samuel Trask Dana Building, which underwent a series of renovations in the late 1990s and early 2000s, achieved the LEED gold level of certification.

With continued growth in faculty and enrollment, the school is beginning to look at their future space needs.

School of Nursing

The School of Nursing has maintained a reputation of excellence for more than 100 years and has been a national leader in the advancement of nursing knowledge and the promotion of trends in health care since its founding. The school's baccalaureate programs include a four-year Bachelor's of Science in Nursing (BSN), a Second Career BSN program, and an RN to BSN completion program. At the master's level, the school offers advanced study in clinical specialist, nurse practitioner, and management roles. The school's Ph.D. and postdoctoral programs prepare nurse scientists to develop the knowledge necessary to support and advance nursing practice and to teach the next generations of BSNs. The school will soon begin construction on a new state-of-the-art building, the first ever expansion for the school. The new 75,000-square-foot building will provide active-learning classrooms, a technologically rich clinical learning center with simulation and skills labs and simulated patient suites, and offices for student services and a small number of faculty offices. When this new building is complete, the school will have programs and operations distributed across two buildings. The existing building, which is approximately 100 years old, will eventually need attention.

College of Pharmacy

Established first as a department in 1868, Pharmacy became an independent college in 1876, the first at any university in the United States. Today, the college offers a number of bachelor's, master's, and doctoral degrees in fields such as pharmaceutical sciences, pharmaceutical engineering, medicinal chemistry, and social and administrative service. The college is also actively involved with other health science schools and colleges on campus in developing interprofessional health science curriculum. The goal of this effort is to provide a more holistic, real-world approach to health care education that brings together students from multiple health science programs (pharmacy, social work, dentistry, public health, etc.) and focuses on patient-centered care. This unique approach to educate students across fields and in larger numbers has led to a need for more modern, larger active-learning classroom facilities. The college is currently exploring ways to reconfigure existing spaces to allow for this. The college has also indicated a need for additional space to meet anticipated growth in faculty and research and to improve the student experience. In an effort to partially address this need, the university completed a modest renovation in 2013 to reconfigure spaces on the first and second floor of the College of Pharmacy Building and to improve mechanical and electrical infrastructure in its aging building.

School of Public Health

Though formally established in 1941, the School of Public Health can trace its beginning back to 1887 when the first professor of hygiene was appointed and to 1897 when the university awarded its first degree in that field. Today, the school offers master's and doctoral degrees in fields such as biostatistics, environmental health sciences, epidemiology, health behavior and health education, and health management and policy. Most recently, the school began a joint master's program in health informatics with the School of Information that focuses on a

human-centered approach to the development and deployment of health information technologies. Starting in 2006, the university made a series of renovations and an expansion to the school's existing buildings to provide higher quality research, classroom, and administrative space, as well as to make significant infrastructure improvements to its research-heavy facilities. The school has recently identified a need to better store their large collection of biological specimens that are used both in active research and cataloged as part of historical studies and is exploring options to address this need.

Gerald R. Ford School of Public Policy

The Gerald R. Ford School of Public Policy traces its history to the founding of the Institute of Public Administration in 1914, the first university program in the United States to provide a systematic course of study in municipal administration. Today, named in honor of Gerald R. Ford, the 38th President of the United States and an alumnus of the University of Michigan, the school prepares graduates for distinguished careers in policy analysis and management and promotes improved public policy through research. Its graduates work in government and in the private and nonprofit sectors all over Michigan, the United States, and throughout the world. Traditionally a graduate and professional school, the school launched a highly successful undergraduate degree program in 2007. Thanks to a generous gift from Joan and Sanford Weill, the school consolidated is functions in 2006 into a newly constructed building named Weill Hall.

Horace H. Rackham School of Graduate Studies

The Horace H. Rackham School of Graduate Studies oversees and coordinates graduate education, bringing together graduate students and faculty from across the institution to experience and take full advantage of the university as a scholarly community. In 2003, a major renovation of the historic Horace H. Rackham Building, originally constructed in 1938, was completed.

School of Social Work

The program in Social Work began in 1921 and was granted the status of a school in 1951. The School of Social Work consistently ranks as one of the top programs in the nation and offers master's and doctoral level degrees and continuing education that prepare practitioners, researchers, and academics in the fields of interpersonal therapy, community organization, management of human services, and social policy and evaluation. Its graduates work throughout Michigan, the U.S., and the globe, with individuals, children and their families, organizations, and communities in such fields as substance abuse, aging, mental health, education, child and public welfare, and public policy. In 2011, the school completed a renovation of the lower level of its building, which repurposed space previously housing a small library into areas that enable students to practice and observe clinical approaches, accommodate expanded continuing education programs, and provide much needed student collaboration and study space. The school recently identified the need for additional space for a variety of administrative and instructional functions and will begin studying options to address this need.

Other Initiatives Impacting Facilities and the Economic Development Impact of Current/Future Programs

As one of the top-ranked public and research institutions in the world, the University of Michigan is fully committed to its role of stewardship and contributing to the state's economy. The university is committed to supporting students and faculty well beyond the traditional walls of studies and research by creating an environment that fosters innovation, robust collaborations and partnerships, and by providing resources to transfer education and research into real world applications. Several endeavors are underway that not only impact current and future facilities usage, but also spur economic development in Michigan and beyond.

Energy Institute

Established in 2006 and building on the legacy of the Michigan Memorial Phoenix Project, which began in 1948, the Energy Institute builds on a strong energy research heritage at the heart of the nation's automotive and manufacturing industries to develop and integrate science, technology and policy solutions for the world's pressing energy challenges, in order to address the demand for economically and environmentally sound energy solutions that is urgent and global. In 2013, an addition to and renovation of the Michigan Memorial Phoenix Laboratory was completed for the Energy Institute. This project replaced building systems and created state-of-the-art laboratory spaces for energy-related research.

University Research Corridor

One example of the university's commitment to the state's economy is its role in the University Research Corridor (URC), a collaboration between the University of Michigan, Michigan State University and Wayne State University that focuses on stimulating economic development in the state and region by leveraging the collective research assets of the three institutions. The URC is an umbrella organization that disseminates information to key stakeholders, including the business community, researchers and students, policymakers, and other investors. In doing so, the URC enhances outreach and collaborative efforts, speeds up technology transfer and development, and communicates the advantages of doing business in Michigan.

North Campus Research Complex

The North Campus Research Complex, or NCRC, is another example of the university's commitment to contributing to the regional economy by bringing together researchers and partners from different disciplines and industries. In addition to world-class research facilities, the NCRC houses the university's Office of Technology Transfer and the Business Engagement Center, which act as a front door to the university's vast resources in technology, research, faculty expertise, and student talent—all tools that support both new and established businesses. In 2011, the university opened the Venture Accelerator at NCRC to provide space and resources for up to three years for start-up companies emerging from new ventures at the Office of Technology Transfer.

- The Office of Technology Transfer is the organization responsible for the transfer of university technology to the marketplace and oversees such programs as the Michigan Investment in New Technology Startups (MINTS); the Michigan Venture Center, which opens the university to entrepreneurs and venture partners interested in start-up opportunities; and the Venture Accelerator. In addition to these programs, the Office of Technology Transfer provides patenting, licensing, legal, and general decision-making and business advice to the U-M community. With this type of assistance, university researchers submitted a record number of new inventions (421) and signed 108 agreements to commercialize technologies in fiscal year 2013.
- The Business Engagement Center (BEC), which is co-located with the Office of Technology Transfer, is an office whose mission is to strengthen the university's ties to business and community partners and to help revitalize and diversify Michigan's economy. Acting as a gateway to the university, the BEC assists business and community partners in maximizing their growth potential by identifying and accessing the university's vast resources, including research discoveries, new technology, high-tech facilities, student and alumni talent, continuing education programs, and strategic giving opportunities.

Michigan Investment in New Technology Startups

The Michigan Investment in New Technology Startups (MINTS) initiative is a program that enables the university to invest up to \$25 million during the next decade in select venture-funded university startups --- new companies built around university inventions. Eligible startups primarily are those that have licensed technologies that originated in faculty labs. Under MINTS, the university reaps the benefits of its initial investment when a company either is acquired or goes public. Through this program, the university is diversifying its existing assets --- money that is continually invested --- and investing directly in technologies and ideas developed by the university's researchers.

Leadership in Transportation and Automotive Research

The University of Michigan has historically held a leadership role in automotive and transportation research and continues to view its strong partnerships with the State government, Federal government, and the private sector, particularly automakers, as essential to the application of the university's research and to the state economy.

The University of Michigan Transportation Research Institute (UMTRI) is a research institute that collaborates with other university units and with public and private sector institutions and automakers. Its mission is to achieve safe and sustainable transportation, increase driving safety, and further transportation systems knowledge through interdisciplinary research. UMTRI's portfolio is vast and its research covers areas like vehicle safety and injury biomechanics; connected-vehicle research and testing; sustainable mobility systems; transportation data fusion and analysis; and the efficient movement of heavy freight.

The College of Engineering is also dedicated to automotive and transportation research and works closely with UMTRI and national and local institutions and business in finding solutions to real world problems. Its research and outreach activities on these topics take place in its Mechanical Engineering department and in a variety of centers within the college, such as the Automotive Research Center, a partnership with the U.S. Army; the National Science Foundation (NSF) Engineering Research Center for Reconfigurable Manufacturing Systems; the General Motors/U-M Institute of Automotive Research and Education; the Advanced Battery Coalition for Drivetrains; the Ground Robotics Research Center for research on mobile robots and autonomous vehicles; and the NSF Emerging Frontiers in Research and Innovation Program for research on electric power grid infrastructures and plug-in hybrid electric vehicles.

The university recently established the Michigan Mobility Transformation Center (MTC), a government-industry partnership formed at U-M to transform global mobility by dramatically improving transportation safety, sustainability, and accessibility. The MTC draws on U-M's broad strengths in engineering, urban planning, energy technology, and information technology to accelerate progress in diverse areas such as connected-vehicle systems, driverless vehicles, shared vehicles, and advanced propulsion systems. The focus of the MTC is a model deployment that will allow researchers to test emerging concepts in connected and automated vehicles in both off-road and on-road settings. Through interdisciplinary cooperation, MTC will also address the many social, political, regulatory, and economic issues inherent in the transition to new mobility technologies and systems

Sustainability and Great Lakes Research

The University of Michigan has long been engaged in many aspects of sustainability, and in recent years has begun focusing resources to spur progress in this critical arena. Through a number of research centers and initiatives, the university is finding realistic solutions to many major sustainability problems --- whether related to energy, water conservation, air pollution, or transportation.

The Great Lakes Integrated Sciences and Assessments Center (GLISA) is a collaboration of the University of Michigan, Michigan State University, Ohio State University, and the Michigan Sea Grant. GLISA's focus is mainly the watersheds of Lake Huron and Lake Erie in Michigan, Ohio, and Ontario, but also encompasses the broader Great Lakes basin. Its research and outreach spotlight critical sectors in the region --- agriculture, watershed management, urban management, water quality, and natural resources-based tourism.

The University of Michigan Water Center, part of the university's Graham Environmental Sustainability Institute, was established in October 2012 to bolster freshwater ecosystem restoration and protection efforts. The center engages researchers, practitioners, policymakers, and nonprofit groups, and its initial efforts are focused on the Great Lakes with an emphasis working closely with academic colleagues and practitioners in the region to improve restoration outcomes.

Third Century Initiative

In anticipation of the university's 200-year anniversary, the university has launched the Third Century Initiative. This goal of this initiative, over the next five years, is to develop innovative, multidisciplinary teaching and scholarship approaches to such topics as climate change, poverty and malnutrition, energy storage, and health care. The initiative encompasses teaching, research, and service efforts with the goal of engaging students and faculty in developing programs that will intensify students' immersive experiences in and beyond the classroom. Emphasis is on international experiences, undergraduate research, service learning, and entrepreneurial activities.

M-Cubed Research Funding Model

Part of the Third Century Initiative is the M-Cubed project, a first-of-its-kind, real-time research funding initiative at the university that puts funds into the hands of researchers to jumpstart new projects. To qualify, three University of Michigan researchers from different disciplines must come up with an idea and agree to work together. A modern alternative to the traditional government grant review process, the new M-Cubed program puts university faculty in charge of divvying research dollars in a pure form of peer review. M-Cubed is designed to encourage bold and grassroots research at the interfaces of academic fields where big breakthroughs tend to happen.

Academic and Practical Training Programs in Entrepreneurship

The university is committed to fostering and nurturing the entrepreneurial spirit across campus, not only with its faculty through programs like M-Cubed, described previously, but also with students through academic programs and incubator-like centers across campus:

- The Zell Lurie Institute, part of the Ross School of Business, is a globally recognized academic program in entrepreneurial studies. The program provides curriculum, program initiatives, community involvement, and alumni outreach activities that deliver exclusive resources for future entrepreneurs at the university. The institute's innovative real-world approach and the Ross School of Business' traditional management excellence encourages, nurtures, and prepares students for entrepreneurial careers and to be leaders for new venture creation and growth.
- The Center for Entrepreneurship, part of the College of Engineering, connects current students with Michigan alumni in the start-up community; provides grants for students to pursue their own ideas for companies and products; supports, simplifies and clarifies intellectual property transfer processes for students and the broader community; and develops entrepreneurship-focused programming on campus. The Center for Entrepreneurship is responsible for launching brand new courses and formal academic programs focused on entrepreneurship and for co-managing the TechArb student startup accelerator, described below.
- TechArb, supported by the Center for Entrepreneurship, the Zell Lurie Institute, and the
 Office of the Vice President for Research is a student venture accelerator program at the
 university. TechArb provides community space in Ann Arbor for students to interact with

each other and with mentors, who include experienced entrepreneurs, investors, venture capitalists, accountants, and lawyers --- often University of Michigan alumni. Mentors and TechArb staff hold regular office hours with students to help them work through their ideas with the goal of building and growing actual companies. TechArb also provides students with summer grants so they can work full time on their venture. Numerous companies have already been founded by students and cover a wide range of areas from the development of software applications for mobile devices to a clothing manufacturing company that uses recycled and eco-friendly materials.

Section III Staffing and Enrollment

STAFFING AND ENROLLMENT

Enrollment at the University of Michigan – Ann Arbor (U-M) has been slowly increasing, from 36,000 in 1969 to more than 43,700 today. In general, it is the intention to maintain enrollments at this level over the next five years. The U-M believes that this represents a level appropriate for the size of the university's faculty, facilities, and funding. While no major overall growth in enrollment is expected, increased enrollment in key programs is expected. For example, the University of Michigan is called upon to meet an increasing demand for instruction in fields such as nursing; a variety of engineering disciplines; public policy; information sciences; and biological, biomedical and life sciences. Education in these fields is an important part of the university's mission, and it meets a very real need in the state and the nation, both of which face a shortage of qualified graduates in these areas. (Detailed enrollment data by school/college follows this page.)

Average class size varies by discipline. In the fall of 2012, 42% of the sections taught to undergraduate students contained fewer than 20 students. Some sections are taught to large groups where appropriate; sections with 50 or more students represented about 11% of the undergraduate sections taught in the fall of 2012.

Total headcount enrollment has grown by more than 12% since the fall of 2003, and the volume of research has increased 77%. The number of General Fund FTEs has grown by about 9.2% overall from the fall of 2003 through fall of 2012, as we strive to contain costs and do more with less. Non-academic staff General Fund FTEs grew by less than 7.5%, while the university has deliberately grown the General Fund academic staff ranks, which are up 11.4% since fall of 2003. Furthermore, in the past several years the university has launched initiatives to hire 150 new faculty members in a concerted effort to improve student-faculty ratio. Health System staffing levels have grown at a compound annual growth rate of 4.5% from FY2003 due to increases in patient care and research activity. At this time it is anticipated that the growth rate in health system staffing levels for the administrative positions to slow down, while patient care/research positions will continue to grow relative to their respective activities.

Impact of Distance Learning

At the University of Michigan, distance learning has been primarily used to combine technological advances with current methods of instruction for on-campus students. Some academic units, such as the College of Engineering, the College of Literature, Science and the Arts, the School of Nursing, the School of Public Health and the Stephen M. Ross School of Business, use distance learning to supplement their Ann Arbor offerings. This approach enhances the quality of the education provided to our students by ensuring that we maintain our competitive edge. Although this area is expected to grow, the university does not anticipate replacing on-campus programs with distance education, nor does the university expect the number of off-campus students to affect the overall enrollment.

Section III

Staffing and Enrollment

Detailed Enrollment Data by School and College

University of Michigan-Ann Arbor

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate		25,994	26,208	27,027	27,407	27,979
Graduate		10,897	11,299	12,188	12,556	12,714
Professional		2,643	2,659	2,709	2,753	2,733
	Total	39,534	40,166	41,924	42,716	43,426

Source: Registrar Report 102 (excludes Extension, Visiting Scholars and Postgraduate Medicine).

Fiscal Year Equated Students

		<u>2007-08</u>	<u>2008-09</u>	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		25,858	25,790	26,062	26,923	27,264
Graduate		11,562	11,830	12,227	13,153	13,413
Professional		2,777	2,793	2,798	2,872	2,948
	Total	40,197	40,413	41,087	42,948	43,625

Source: Enrollment and Degree Tables, Table 5 (excludes Officer Education Program).

FTE Faculty and Staff Counts (Includes Hospital)

	2007-08	2008-09	2009-10	<u>2010-11</u>	2011-12
Instructional Faculty	4,151.24	4,267.85	4,396.74	4,459.26	4,592.24
Primary Faculty	861.42	851.46	893.48	916.76	925.87
GSI/Post Docs/Res. Fellows	3,440.11	3,597.38	3,813.44	3,903.69	3,968.72
Non-Academic Staff	23,832.07	24,598.83	24,948.94	25,502.25	26,071.75
Total	32 284 84	33 315 52	34 052 60	34 781 96	35 558 58

Source: Summary Profile.

Research Grants and Contracts

(\$000)

<u>2007-08</u>	2008-09	2009-10	<u>2010-11</u>	<u> 2011-12</u>
847 771	910 116	997 475	1 082 543	1 055 163
A4///I	910.110	997.475	1.082.343	1.055.105

Source: Financial Activities Tables, Table 2.2. Total is for Ann Arbor Campus.

Fall Term Student to Faculty Ratio

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
15:1	15:1	15:1	16:1	16:1

Source: Common Data Set.

Section III Staffing and Enrollment Page 2

A. Alfred Taubman College of Architecture and Urban Planning

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate		244	219	214	211	179
Graduate		365	411	423	421	427
Professional						
	Total	609	630	637	632	606

Source: Registrar Report 102.

Fiscal Year Equated Students

		<u>2007-08</u>	2008-09	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate Graduate Professional		260 428	276 445 	260 484	255 506	259 529
	Total	688	721	744	760	787

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	61.45	62.84	70.37	79.69	82.09
Primary Faculty	0.00	0.00	0.00	0.00	0.00
GSI/Post Docs/Res. Fellows	15.03	16.86	17.04	17.21	17.56
Non-Academic Staff	31.16	30.70	32.25	36.75	36.75
Total	107.64	110.40	119.66	133.65	136.40

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
652	916	227	408	368

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>20</u>	<u>07-08</u>	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
	18	20	18	16	16

Penny W. Stamps School of Art and Design

Fall Term Headcount Enrollment by Level

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	470	511	515	553	572
Undergraduate Joint Prograr					10
Graduate	25	28	24	25	25
Professional					
Total	495	539	539	578	607

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

Fiscal Year Equated Students

	2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate	343	393	417	416	444
Undergraduate Joint Prograr					
Graduate	23	24	26	23	24
Professional					
Total	366	417	443	440	468

Source: Enrollment and Degree Tables, Table 5.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

FTE Faculty and Staff Counts

	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	39.15	46.23	47.45	43.64	46.97
Primary Faculty	0.00	0.00	0.00	0.00	0.00
GSI/Post Docs/Res. Fellows	4.50	4.96	6.21	5.62	6.31
Non-Academic Staff	37.15	37.15	36.40	35.90	35.65
Total	80.80	88.34	90.06	85.16	88.93

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
4	5	4	0	0

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	2008-09	2009-10	2010-11	<u>2011-12</u>
12	13	12	12	13

Stephen M. Ross School of Business

Fall Term Headcount Enrollment by Level

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	1,060	1,082	1,138	1,213	1,333
Graduate	1,872	1,855	1,914	1,933	1,917
Graduate Joint Program					17
Professional					
Total	2,932	2,937	3,052	3,146	3,267

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

Fiscal Year Equated Students

		<u>2007-08</u>	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		814	782	805	845	913
Graduate		2,046	2,087	2,112	2,181	2,197
Professional	_					
	Total	2,859	2,869	2,917	3,026	3,110

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	149.30	150.05	152.75	152.59	148.31
Primary Faculty	8.25	8.25	8.00	8.00	8.00
GSI/Post Docs/Res. Fellows	26.83	26.26	31.91	30.49	27.74
Non-Academic Staff	259.97	267.40	268.65	251.35	252.16
Total	444.35	451.96	461.31	442.43	436.21

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
3.449	2.272	1.831	1.304	782

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2007-08</u>	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
45	46	46	48	51

School of Dentistry

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate		101	112	109	109	96
Graduate		97	96	90	89	103
Professional		442	436	439	440	427
	Total	640	644	638	638	626

Source: Registrar Report 102.

Fiscal Year Equated Students

		<u>2007-08</u>	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		66	75	79	78	77
Graduate		72	69	72	72	74
Professional	_	583	586	578	607	631
	Total	720	730	728	756	781

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	133.91	131.11	134.69	130.94	140.48
Primary Faculty	11.55	12.00	14.29	16.95	18.03
GSI/Post Docs/Res. Fellows	38.38	49.00	46.59	39.83	36.48
Non-Academic Staff	316.62	325.88	329.67	320.45	330.23
Total	500.46	517.99	525.24	508.17	525.22

Source: Summary Profile.

Research Grants and Contracts

(\$000)

<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
15,109	16,915	18,567	18,880	18,352

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2007-08</u> <u>2008-09</u> <u>2009-10</u> <u>2010-11</u> <u>2011-12</u>

Not Available

School of Education

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate		206	214	211	177	182
Graduate		329	343	388	322	385
Professional						
	Total	535	557	599	499	567

Source: Registrar Report 102.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		259	251	256	280	269
Graduate		372	373	396	476	403
Professional	_					
	Total	631	624	652	756	672

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	62.48	64.17	65.07	69.43	62.99
Primary Faculty	8.30	7.16	10.22	8.57	7.07
GSI/Post Docs/Res. Fellows	58.98	69.29	60.60	61.41	62.88
Non-Academic Staff	93.24	96.27	93.42	98.46	108.83
Total	223.00	236.89	229.31	237.87	241.77

Source: Summary Profile.

Research Grants and Contracts

(\$000)

<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
12.968	13.973	14.081	12.658	12.579

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	2008-09	2009-10	<u>2010-11</u>	2011-12
15	13	16	17	16

Source: Enrollment and Degree Tables, Table 8.

Section III Staffing and Enrollment Page 7

College of Engineering

Fall Term Headcount Enrollment by Level

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	5,217	5,459	5,570	5,603	5,757
Graduate	2,479	2,646	2,952	3,220	3,157
Graduate Joint Program					17
Professional					
Total	7,696	8,105	8,522	8,823	8,931

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		3,026	3,173	3,339	3,557	3,686
Graduate		2,067	2,090	2,222	2,486	2,643
Professional	_					
	Total	5,093	5,263	5,561	6,044	6,329

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	2007-08	2008-09	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	330.76	345.50	358.93	371.26	379.89
Primary Faculty	76.28	82.68	90.23	100.02	110.6
GSI/Post Docs/Res. Fellows	579.63	614.97	678.19	720.9	750.87
Non-Academic Staff	493.19	504.49	537.12	548.57	555.3
Total	1,479.86	1,547.64	1,664.47	1,740.75	1,796.66

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	2009-10	<u>2010-11</u>	2011-12
125,755	131,989	152,781	159,553	165,596

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
33	34	35	35	35

School of Information

Fall Term Headcount Enrollment by Level

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate					
Graduate	391	416	429	425	432
Graduate Joint Program					21
Professional					
Total	391	416	429	425	453

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		20	32	45	67	78
Graduate		315	377	379	397	393
Professional	_					
	Total	335	409	425	464	470

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	29.53	29.61	30.27	28.33	29.93
Primary Faculty	7.52	4.88	1.79	1.27	1.77
GSI/Post Docs/Res. Fellows	28.19	26.30	27.20	27.10	29.74
Non-Academic Staff	46.15	45.15	41.31	42.22	41.58
Total	111.39	105.94	100.57	98.92	103.02

Source: Summary Profile.

Research Grants and Contracts

(\$000)

<u>2007-08</u>	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
5,008	3,957	4,070	4,594	4,235

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
23	26	26	32	32

School of Kinesiology

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate		808	811	852	877	883
Graduate		49	55	61	66	69
Professional						
	Total	857	866	913	943	952

Source: Registrar Report 102.

Fiscal Year Equated Students

		<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		445	421	458	474	512
Graduate		37	40	41	56	55
Professional	_					
	Total	482	461	498	530	567

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	29.57	32.44	31.58	33.87	39.02
Primary Faculty	3.00	1.00	2.25	3.34	2.25
GSI/Post Docs/Res. Fellows	17.23	18.94	12.60	12.69	12.46
Non-Academic Staff	56.78	65.76	63.07	66.41	68.03
Total	106.58	118.14	109.50	116.31	121.76

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
8,563	6,413	6,478	6,848	7,900

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2007-08</u>	<u>2008-09</u>	2009-10	<u>2010-11</u>	<u>2011-12</u>
22	20	19	20	21

Law School

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate						
Graduate						
Professional		1,206	1,165	1,182	1,195	1,165
	Total	1,206	1,165	1,182	1,195	1,165

Source: Registrar Report 102.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		0	0	0	0	0
Graduate		3	7	5	3	6
Professional	_	1,188	1,185	1,161	1,182	1,195
	Total	1,191	1,192	1,166	1,185	1,200

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	2007-08	<u>2008-09</u>	2009-10	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	80.13	77.96	81.27	82.00	84.87
Primary Faculty	9.00	10.60	10.60	8.35	9.35
GSI/Post Docs/Res. Fellows	0.00	0.52	0.87	2.50	3.50
Non-Academic Staff	166.22	165.13	177.11	172.23	176.61
Total	255.35	254.21	269.85	265.08	274.33

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
506	493	1,508	1,584	1,472

Source: Financial Activities Tables, Table 2.2.

Weighted Average Class Size

2007-08	2008-09	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
29	32	30	28	29

College of Literature, Science, and the Arts

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate		16,309	16,223	16,873	17,082	17,399
Graduate		1,977	2,021	2,331	2,323	2,356
Professional						
	Total	18,286	18,244	19,204	19,405	19,755

Source: Registrar Report 102.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		19,024	18,732	18,629	19,105	19,148
Graduate		2,793	2,845	2,902	3,162	3,110
Professional						
	Total	21,817	21,577	21,531	22,267	22,258

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	1,189.23	1,198.34	1,221.06	1,210.46	1,222.54
Primary Faculty	77.15	84.21	71.04	62.52	57.03
GSI/Post Docs/Res. Fellows	866.43	880.60	926.25	917.28	921.13
Non-Academic Staff	891.50	894.26	955.54	926.22	866.99
Total	3.024.31	3.057.41	3.173.89	3.116.48	3.067.69

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
65,601	71,177	74,531	82,160	80,028

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	2008-09	2009-10	<u>2010-11</u>	2011-12
28	28	27	29	29

Medical School

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate						
Graduate		358	393	365	394	412
Professional		748	797	802	825	817
	Total	1,106	1,190	1,167	1,219	1,229

Source: Registrar Report 102.

Fiscal Year Equated Students

		<u>2007-08</u>	<u>2008-09</u>	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		193	243	296	324	319
Graduate		572	607	595	629	664
Professional		713	727	756	757	769
	Total	1,478	1,577	1,647	1,710	1,752

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	2007-08	2008-09	<u>2009-10</u>	<u>2010-11</u>	2011-12
Instructional Faculty	1,550.85	1,600.17	1,657.53	1,713.22	1,781.91
Primary Faculty	314.07	304.90	325.30	319.38	338.30
GSI/Post Docs/Res. Fellows	506.76	556.57	626.24	647.25	666.23
Non-Academic Staff	3,129.59	3,237.75	3,312.59	3,178.75	3,335.13
_ Total	5,501.27	5,699.39	5,921.66	5,858.60	6,121.57

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	<u>2009-10</u>	<u>2010-11</u>	2011-12
349.516	382.762	430.101	462.284	439.204

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	2008-09	2009-10	2010-11	2011-12
/()()/-()X	7010X-019	7009-10	/U I U= I I	/() - /

Not Available

School of Music, Theatre and Dance

Fall Term Headcount Enrollment by Level

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate	777	781	763	787	782
Undergraduate Joint Progran					10
Graduate	258	260	286	305	309
Professional					
Total	1,035	1,041	1,049	1,092	1,101

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

Fiscal Year Equated Students

	2007-08	2008-09	2009-10	<u>2010-11</u>	2011-12
Undergraduate	797	811	813	807	844
Undergraduate Joint Progran					
Graduate	331	319	329	350	368
Professional					
Total	1,128	1,130	1,142	1,156	1,212

Source: Enrollment and Degree Tables, Table 5.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

FTE Faculty and Staff Counts

	2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	138.10	138.66	143.31	144.71	147.76
Primary Faculty	0.45	0.45	0.45	0.45	-
GSI/Post Docs/Res. Fellows	21.53	22.40	22.26	24.63	24.76
Non-Academic Staff	82.35	84.73	86.26	86.12	86.14
Total	242.43	246.24	252.28	255.91	258.66

Source: Summary Profile.

Research Grants and Contracts

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2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
107	76	73	53	59

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
16	16	16	16	17

School of Natural Resources and Environment

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate					1	1
Graduate		281	293	356	346	366
Professional						
	Total	281	293	356	347	367

Source: Registrar Report 102.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		2	2	3	2	1
Graduate		221	249	281	312	296
Professional	_					
	Total	224	251	284	314	297

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	28.60	26.89	28.40	29.68	32.07
Primary Faculty	12.96	12.32	9.10	10.35	9.30
GSI/Post Docs/Res. Fellows	25.81	29.40	30.07	33.59	35.95
Non-Academic Staff	58.20	65.65	63.78	73.01	78.70
 Total	125.57	134.26	131.35	146.63	156.02

Source: Summary Profile.

Research Grants and Contracts

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2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
9,753	11,041	10,470	13,180	15,571

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
14	17	18	19	17

School of Nursing

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate		647	637	624	640	641
Graduate		259	287	298	335	336
Professional					5	12
	Total	906	924	922	980	989

Source: Registrar Report 102.

Fiscal Year Equated Students

		<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		544	521	551	573	573
Graduate		159	156	182	216	228
Professional						7
	Total	703	677	734	789	808

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	74.54	83.38	81.52	81.15	77.54
Primary Faculty	5.45	2.85	1.40	0.58	0.94
GSI/Post Docs/Res. Fellows	10.25	13.80	12.30	9.85	8.63
Non-Academic Staff	66.00	68.19	73.12	75.84	74.47
Total	156.24	168.22	168.34	167.42	161.58

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
5,956	5.748	5,413	5.869	6,354

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2007-08</u>	<u>2008-09</u>	2009-10	<u>2010-11</u>	<u>2011-12</u>
12	12	12	12	11

College of Pharmacy

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate		51	44	41	40	23
Graduate		88	93	86	95	94
Professional		247	261	286	288	312
	Total	386	398	413	423	429

Source: Registrar Report 102.

Note: Almost all of the undergraduate students are in the Pharm.D. program and are shown as undergraduates because they did not have an undergraduate degree on entry to the program.

Fiscal Year Equated Students

		<u>2007-08</u>	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		3	4	4	2	1
Graduate		77	86	92	83	98
Professional		294	295	304	326	348
	Total	374	385	400	412	446

Source: Enrollment and Degree Tables, Table 5.

Note: All students in the Pharm.D. program are included in the College of Pharmacy graduate-professi

FTE Faculty and Staff Counts

	2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	36.57	37.23	38.74	35.39	35.30
Primary Faculty	20.40	21.99	22.22	20.54	20.01
GSI/Post Docs/Res. Fellows	29.67	24.94	24.39	33.89	31.31
Non-Academic Staff	39.40	39.71	44.00	45.69	49.93
- Total	126.04	123 87	129 35	135 51	136 55

Source: Summary Profile.

Research Grants and Contracts

(\$000)

2007-08	2008-09	2009-10	<u>2010-11</u>	2011-12
5,245	6,169	8,199	7,902	7,612

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
48	50	37	41	35

School of Public Health

Fall Term Headcount Enrollment by Level

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate					
Graduate	864	904	944	975	991
Graduate Joint Program					21
Professional					
Total	864	904	944	975	1,012

Source: Registrar Report 102.

Note: Joint Programs are shown in both Schools/Colleges, but only once in the Summary.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		10	8	28	50	50
Graduate		1,010	1,018	1,030	1,077	1,137
Professional						
	Total	1,020	1,026	1,058	1,128	1,187

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	95.42	103.01	101.45	103.70	112.31
Primary Faculty	27.69	24.93	30.21	31.33	30.81
GSI/Post Docs/Res. Fellows	87.09	92.84	95.14	111.23	111.77
Non-Academic Staff	257.82	271.95	288.21	293.21	306.59
Total	468.02	492 73	515.01	539 47	561 48

Source: Summary Profile.

Research Grants and Contracts

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<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
56,795	69,825	64,609	90,036	82,195

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	2008-09	2009-10	<u>2010-11</u>	2011-12
32	31	31	33	30

Gerald R. Ford School of Public Policy

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate		104	115	117	114	121
Graduate		161	178	169	189	191
Professional						
	Total	265	293	286	303	312

Source: Registrar Report 102.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		51	62	73	75	75
Graduate		206	211	240	236	250
Professional	_					
	Total	257	273	313	311	325

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	2007-08	2008-09	2009-10	<u>2010-11</u>	2011-12
Instructional Faculty	24.70	24.64	28.08	25.53	27.68
Primary Faculty	2.16	1.42	1.80	0.89	1.05
GSI/Post Docs/Res. Fellows	9.40	11.96	14.09	17.03	16.44
Non-Academic Staff	34.55	36.00	38.04	38.02	36.88
Total	70.81	74.02	82.01	81.47	82.05

Source: Summary Profile.

Research Grants and Contracts

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2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
2,061	2,293	3,062	3,386	3,335

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
30	34	36	35	35

Horace H. Rackham School of Graduate Studies

Fall Term Headcount Enrollment by Level

		2008	2009	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate						
Graduate		492	485	515	497	484
Professional						
	Total	492	485	515	497	484

Source: Registrar Report 102.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		1	0	1	0	0
Graduate		61	76	90	71	70
Professional	_					
	Total	62	76	90	71	70

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2007-08</u>	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	0.00	0.35	0.25	0.29	0.60
Primary Faculty	0.99	0.89	0.89	0.63	0.70
GSI/Post Docs/Res. Fellows	12.10	19.40	17.63	18.97	11.46
Non-Academic Staff	124.25	132.27	133.31	140.69	105.35
Total	137.34	152.91	152.08	160.58	118.11

Source: Summary Profile.

Research Grants and Contracts

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2007-08	2008-09	2009-10	<u>2010-11</u>	2011-12
4.939	3.575	5.237	6.561	2.712

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
15	13	19	17	13

School of Social Work

Fall Term Headcount Enrollment by Level

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Undergraduate						
Graduate		552	535	557	596	622
Professional						
	Total	552	535	557	596	622

Source: Registrar Report 102.

Fiscal Year Equated Students

		2007-08	2008-09	2009-10	<u>2010-11</u>	<u>2011-12</u>
Undergraduate		2	3	5	13	16
Graduate		768	751	750	817	869
Professional	_					
	Total	771	754	755	830	884

Source: Enrollment and Degree Tables, Table 5.

FTE Faculty and Staff Counts

	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>
Instructional Faculty	52.44	57.74	56.92	57.70	59.72
Primary Faculty	7.32	3.10	3.01	3.95	2.16
GSI/Post Docs/Res. Fellows	4.65	7.15	10.58	11.80	12.74
Non-Academic Staff	58.82	54.07	56.98	63.87	61.81
Total	123.23	122.06	127.49	137.32	136.43

Source: Summary Profile.

Research Grants and Contracts

(\$000)

<u>2007-08</u>	<u>2008-09</u>	2009-10	<u>2010-11</u>	<u>2011-12</u>
3,591	3,802	4,239	3,708	3,811

Source: Financial Activities Tables, Table 2.2.

Fall Term Weighted Average Class Size

2007-08	<u>2008-09</u>	2009-10	<u>2010-11</u>	<u>2011-12</u>
24	21	20	21	21

Section IV

Facility Assessment

FACILITY ASSESSMENT

University of Michigan Space Management

In February 2007, the University of Michigan began a multi-year, campus wide Space Utilization Initiative to explore how Ann Arbor campus building space was used, lead the campus toward better utilization of existing General Fund space, and limit the need for building expansion. The initiative explored effective use of all types of space, including instructional, research, office, and food venue space in existing and planned facilities and put in place a foundation of space policies, business processes, resources and tools that are now used across the Ann Arbor campus.

Key accomplishments of the Space Utilization Initiative included:

- Implementing disciplined processes that helped slow the growth of new General Fund space to an average compound annual growth rate of 0.35 percent per year in recent years, down from an average compound annual growth rate of 2.02 percent from the previous decade.
- Shifting the campus culture to one where space is considered more of an institutional resource that must be shared and managed effectively for the good of the institution.
- Establishing institutional policies that communicate how classrooms, research space, offices, and food service venues should be assigned or used.
- Implementing tools to measure classroom time and seat utilization to enable the campus to monitor and manage classrooms more efficiently.
- Implementing a policy that requires all general purpose classrooms to be shared campuswide between the hours of 8 a.m. and 5 p.m. and that classes be scheduled more efficiently throughout the day and week to reduce demand and scheduling conflicts in peak hours.

The formal Space Utilization Initiative ended in 2011. With this foundation in place, effective space management is now a part of campus culture and has led the campus to repurpose underutilized and less desirable space for higher priority uses. Examples include renovating a number of lesser used classrooms into a test-taking center for students with special test-taking needs and repurposing a vacant university-owned warehouse into a building for various collections.

Physical Properties

The university owns approximately 3,245 acres of property within the Ann Arbor area and approximately 17,870 acres in out-state areas (most within the State of Michigan). An inventory of the university's physical properties, as well as a detailed listing of each owned facility within and proximate to the Ann Arbor campus, is located at the end of this section. The specific building information is a report generated by utilizing the following attribute data contained in the Space Management System: Building Number, Building Name, Building Type, Gross Square

Feet, Acquired Date and/or Construction Date, Original Cost (the initial acquisition or construction cost of a building), Replacement Cost, and the deferred maintenance backlog for the building.

Facility Condition Assessment (FCA) Program

The University of Michigan's Facility Condition Assessment Program fully evaluates buildings on campus in an effort to identify infrastructure deficiencies and establish a priority for funding renovations and repairs. The objective of the program is to develop and maintain a 5-year model for buildings showing facility related needs (projects) and track the status of each project through completion. The model only considers the highest priority needs and spreads such needs over a 5-year period. Needs addressed in the database include building components and systems: architectural, structural, civil, mechanical, electrical, life safety and fire protection, environmental health, and building accessibility. The database provides a good baseline of the overall condition of General Fund buildings as well as the facilities for Housing, Athletics, Student Affairs, and the Hospitals and Health Centers. Overall, the FCA program provides a platform to implement an ongoing system of identification and prioritization of capital repair projects at the University of Michigan. A more detailed description of the Facility Condition Assessment Program is located later in this section.

Campus Parking Structure Assessment

To complement the information in the FCA Program, the University of Michigan every five years engages a parking restoration consultant to assess the condition of the existing parking structures within the system to develop a system-wide maintenance program that serves as a guide for future repairs and cost estimates (adjusted for inflation). While continually planning for parking on campus, the university also develop strategies for alternative transportation modes. Some examples include expanded bicycle access, ride share programs, and potential for high-capacity transit systems partnered with the City of Ann Arbor.

The existing parking system provides more than 27,000 parking spaces to academic, hospital, and operating staff as well as students, visitors, and other university community members. The university has 13 parking structures providing approximately 11,500 parking spaces.

In February 2012 the university and City of Ann Arbor mutually agreed to suspend work on the Fuller Road Station, an intermodal facility. The city is working to obtain federal funding to pursue building a train station at the same site and calling it the Ann Arbor Station. This decision prompted the university to move forward with the Wall Street East Parking Structure project that had been put on hold when the Fuller Road Station project began. The Wall Street East Parking Structure, which will provide a net 530 additional parking spaces on the northwest side of the Medical Center Campus, is scheduled to open in the summer of 2014. Opportunities for additional parking development near the Medical Center Campus are also being studied.

The parking structures on campus vary in both type of construction, level of previous repairs and current condition. In the past few decades the university has conducted major renovation projects in most of the older facilities. Repairs to the North Entrance Parking Structure were completed in 2013, as well as waterproofing and stair repairs at the North Campus Research Complex structure. Other improvements completed in 2013 included guardrail replacement at the Church Street structure and interior painting and relighting of the original Thompson Street structure. Based on the parking facility condition report of 2006 and a follow-up study in 2010, planning has begun on a program to replace the two elevators in the Glen Avenue structure, one each in 2013 and 2014. Other planned improvements at the Glen Avenue structure include interior painting and lighting replacement.

Improving the sustainability features of the university's parking facilities continues to be a key goal. New programmable fluorescent lighting systems, installed in recent years in the Hill Street, Thayer Street and Thompson Street structures, that reduced energy consumption by an average of 52 percent, are currently planned for the Glen Avenue structure.

The university is considering an exploration of the potential benefit of a public-private partnership to the university and its employees through a lease of the parking assets to a private parking operator.

University Sustainability Initiatives

Just as the University of Michigan is committed to breadth and depth of research, teaching, and health care, the U-M is also committed to institutionalize campus sustainability. A significant amount of resources are required to support the university's physical plant, justifying the development of a comprehensive strategy to minimize the U-M's environmental impact.

As important as it is for U-M physical operations to reduce its own impact on the environment, the most fundamental contribution that the university will make to world sustainability will come from the research of faculty and education of students that creates a future path for environmental progress. What links both together is the opportunity for the campus to serve as both a model for advanced sustainability practices, and a laboratory for students and faculty to test new ideas and approaches. The living-learning laboratory theme leads the U-M to focus on strategies that decrease the university's environmental footprint in measurable ways while creating hands-on experiences for students.

For more than 100 years, U-M faculty, staff and students have worked hard to preserve the natural environment by implementing innovative programs, many of which have received significant national recognition. In October 2009, President Mary Sue Coleman continued the commitment toward sustainability by creating the Office of Campus Sustainability and endorsing an effort to set university-wide goals that were developed using an Integrated Assessment (IA) framework. The IA process involved teams of faculty, staff, and students focused on an intense two-year effort that produced a set of guiding principles and campus-

wide goals which were presented and endorsed by an Executive Council chaired by President Coleman.

To further U-M excellence in the field of environmental sustainability, the President and Executive Officers have implemented an organizational framework to accomplish the following:

- Inspire students, faculty, and staff to become involved in helping to solve the environmental sustainability issues facing the campus and the world we live in.
- Coordinate, facilitate and advance sustainability efforts in campus operations.
- Coordinate, facilitate and advance sustainability efforts in university academics.
- Connect academic and operations activities to foster collaborative sustainability learning.

At the heart of this organizational structure is collaboration between the Office of Campus Sustainability and the Graham Environmental Sustainability Institute. Together, these units work to advance sustainability at the university by connecting operational efforts to research and learning opportunities whenever possible and practical.

Utilities Assessment

Utilities master planning assessments are routinely updated to determine if the necessary production and distribution systems for steam, natural gas, water, sanitary and storm sewers, electricity, and chilled water are in place to support the facilities needed to accomplish the university's academic and research missions. Projects are identified and implemented annually from these assessments.

A study is currently under way to perform a feasibility and risk assessment on the concept of expanding the existing Central Power Plant to add additional combined cycle power generation. The study will provide the information necessary for the university to determine if the addition is economically and environmentally achievable.

The University of Michigan and the Ann Arbor Fire Department have been working together to identify and coordinate fire lane routes that optimize access to buildings while minimizing the instances where a fire truck will need to drive over an underground structure such as a steam tunnel. Currently four projects are being programmed and included in the utility capital plan to increase the load rating of select tunnel sections that could be used for fire truck access.

Water, sewer, and storm water master planning efforts have routinely been conducted over the years. Projects that come out of these planning activities are prioritized into a capital plan. Over the next five years the following projects are anticipated to take place: water main on Ingalls Mall, loop service near Stone Road, water main on Cram Circle, and water main on Bonisteel Boulevard. The university is also working with the city to model the storm and sanitary systems on Central Campus in the hope of developing a long-term plan for addressing a number of legacy issues that have existed for years.

FACILITY CONDITION ASSESSMENT PROGRAM

Overview

The University of Michigan's Facility Condition Assessment (FCA) Program includes a comprehensive database on the physical condition of the building portfolio. The database addresses the condition of most major building components and systems, including architectural, structural, civil, mechanical, electrical, life safety and fire protection, environmental health, and building accessibility. Deficiencies and anticipated needs are listed in the database as independent projects and assigned a priority, budget, and classification. Costs related to the presence of environmental hazards (asbestos and lead-based paint) are not included. While the university has attempted to make the FCA Program as comprehensive as possible, it is a policy-neutral, technical assessment of existing conditions. It does not include costs related to programs and/or the reconfiguration of building spaces.

The FCA building condition and cost data are intended to serve the community by: (1) identifying near-term needs to maintain standards and assure the service integrity of aging systems and building components; and (2) providing an information base to support the institution's process for shaping the future of its campus. The FCA Program, therefore, is not a comprehensive capital plan for building renewal.

Recommended scopes of work aim at restoring the existing buildings as they presently exist, with some upgrades to meet codes, such as accessibility, and social norms, such as airconditioning.

Program Benefits

The FCA Program provides the platform that is used to implement an ongoing system of identification and prioritization of capital repair projects within the University of Michigan. The FCA Program has a wide range of benefits to several different departments within the university. The FCA Program provides:

- A central location for storing of facility condition data. Previously to access all of the condition data for a particular building it was necessary to gather information from different departments.
- A means of organizing and sorting facility condition data such that reports can be viewed and printed using a wide variety of criteria. Each user can sort and print the data that suits their particular need.
- A useful tool for organizing and prioritizing all deficiency corrective measures using standardized criteria.
- A facility condition needs index (FCNI) value, which is simply the cost required to correct all deficiencies in a building divided by the total replacement cost of that building. This FCNI is

- useful in determining which buildings should be considered for major renovations or upgrades.
- A useful tool in the development of a five-year capital renewal model that shows the needs versus available funding and the resultant FCNI.

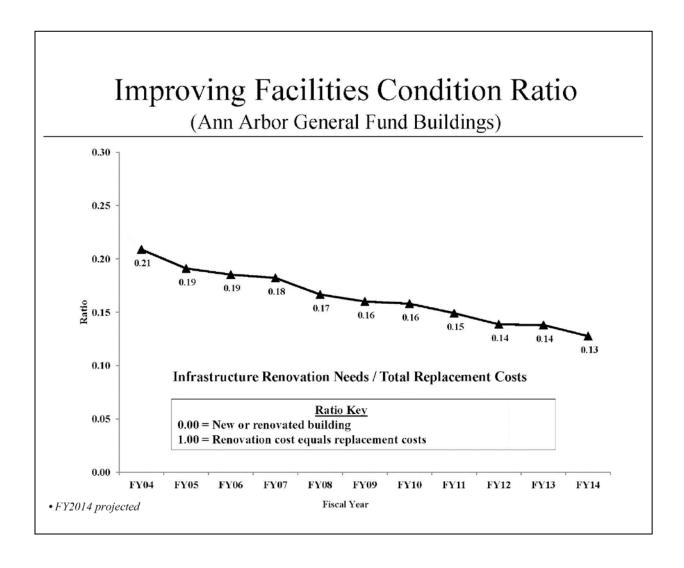
FCA Priority Classification System

The following system was developed to help clarify priorities and assist with consistency in planning and decision-making:

	Priority	Definitions
Necessary	Priority #1 Critical Priority #2 High Priority	Needed work that requires near-term action to accomplish one or more of the following: (1) restore building occupancy due to natural disaster or catastrophic failure (2) address cited or known life-threatening safety hazard Needed work that requires near-term action to accomplish one or more of the following: (1) avoid situation from becoming a priority #1 (2) prevent accelerated deterioration of building component or system (3) replace component that has worn out or is no longer in service (4) avoid loss of critical system that would significantly affect services, impact occupancy, or create a safety hazard (5) address existing non-life-threatening safety hazard (6) maintain, restore, or upgrade conditions to minimum acceptable university standards (7) reduce unacceptably high maintenance, energy and/or other operating costs (economically justified via payback) (8) meet program requirements
	Priority #3 Necessary	Needed work that is expected to become a priority #1 or #2 within the next 10 years.
Deferrable	Priority #4 Deferrable until Building Renewal	Needed work that can probably wait more than 10 years. This work will be completed during a building renewal.

Overall FCA Program Impact

The FCNI for campus buildings has been recorded for each fiscal year. The chart below shows FCNI history. This chart shows continued improvement of the General Fund FCNI through the years as infrastructure needs are addressed. Since FY2004, the FCNI has improved by 38%.



Section IV

Facility Assessment

Physical Properties Inventory (Acreage)

UNIVERSITY OF MICHIGAN - PHYSICAL PROPERTIES

Year Ended June 30, 2013

2012-2013	201	2-201	3
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		Balance			Balance
	Acreage	June 30, 2012	Additions	Disposals	June 30, 20
):	, wroage	54110 00, 2012	, waitions	Dioposais	30.10 30, 20
Ann Arbor Area:					
General:					
Original Campus	40.30	\$ 160,000.00			\$ 160,000
North Campus	676.75	1,388,550.51			1,388,550
Ann Street 1121 & 1127	0.40	2,524,448.75			2,524,448
Arboretum	94.50	11,044.13			11,04
Botanical Gardens	341.76	487,836.70			487,83
Burton Memorial Tower	0.20	9,706.22			9,70
BSRB Building	0.49	62,305.47			62,30
Broadway 910	0.15	91,600.00			91,60
Cornwell Place, 1009 & 1013	0.77	492,829.00			492,82
Davidson, William Hall	2.13	237,210.11			237,21
Dennison, David M	1.09	61,865.00			61,86
Dental Building and W.K. Kellogg Institute	3.40	54,147.86			54,14
East Hall	1.91	141,301.00			141,30
Education, School of	3.86	307,083.01			307,08
Felch Park	2.30	35,000.00			35,00
Fleming Administration Building	0.30	104,571.99			104,57
Glen Street 206	0.06	425,255.22			425,25
Glen Street 202	0.07	474,639.36			474,63
Glen Street 210	0.07	112,600.00			112,60
Hill Auditorium	1.30	30,250.00			30,25
1007 E. Huron St. & 1027 E. Huron St	0.81	15,691.78			15,69
Inglis Property, Highland Road	9.17	26,666.98			26,66
Kresge Medical Research Building	2.38	115,858.51			115,85
Lane Hall	0.48	50,000.00			50,00
Law Quadrangle	7.20	881,607.47			881,60
Literature, Science and the Arts Building	2.24	264,919.41			264,91
Little, Clarence Cook, Science Building	3.13	292,237.75			292,23
Maiden Lane 1024	0.15	70,200.00			70,20
Main St./Keech Property	3.15	2,518,864.44			2,518,86
Mental Health Research Institute	0.53	46,920.05			46,92
Mitchell Field	62.50	36,000.00			36,00
Modern Languages Building	1.60	415,479.92			415,47
Museums Building	3.06	223,829.84			223,82
NCRC Property Parcel A	60.27	1,587,916.00			1,587,91
NCRC Property Parcel B	30.00	780,015.00			780,01
	54.23	· ·			
NCRC Property Parcel C		1,468,987.00			1,468,98
NCRC Property Parcel D	29.02	818,291.00			818,29
Newberry Hall	0.20	26,400.00			26,40
News Service Building	0.30	35,111.24			35,11
North Hall	4.50	17,500.00			17,50
North Ingalls Street Property	5.13	869,634.05			869,63
North Quadrangle	2.11	244,000.00			244,00
Palmer Drive Buildings	1.62	39,927.30			39,92
Oakland Property 726	0.20	155,000.00			155,00
Oakland Property 712	0.20	96,200.00			96,20
Oakland Property 716	0.14	138,000.00			138,00
Observatory, Campus	1.99	6,430.00			6,43
Perry Building	1.25	150,430.00			150,43
Pound, Madelon, House	0.40	10,000.00			10,00
Power Center for the Performing Arts	0.79	102,281.63			102,28
Public Health Building, School of	2.64	188,834.90			188,83
Rackham, Horace H., School of Graduate Studies	3.60	485,136.65			485,13
Recreational Sports	22.87	430,468.71			430,46
Scattered Lots	180.42	7,106,953.31			7,106,95
Side Track Right-of-Way	8.72	25,983.41			25,98
Simpson, Thomas Henry, Memorial Institute	2.18	1,330.38			1,33
Social Research, Institute for	1.20	580,562.06			580,56
South Division St 405	0.12	255,556.42	-		255,55
South Division St 417	0.09	240,200.00			240,20
South Division St 439	0.10	84,556.42	_		84,55
South Division 507	0.07	409,625.93			409,62
South Division 513	0.10	480,706.73			480,70
South Division 549-551	0.18	122,7 330	1,077,235.50		1,077,23
South Division 545	0.09		426,900.75		426,90
South Division 543	0.09		1,492,756.00		1,492,75
South Division 535&537 & 401&409Madison	0.18		3,173,856.00		3,173,85
		206 744 52	3,173,030.00		
Student Activities Building	1.21	296,711.52			296,71
Vaughan, Victor, House	1.03	3,440.12			3,44
Wall Street 953	0.20	43,400.00			43,40
Wall Street 963	0.12	66,363.05	-		66,36
Wall Street 1041	0.26	254,916.44			254,91
Wall Street 1025	0.07	55,000.00			55,00
Wall Street 1059	0.19	162,600.00			162,60
Wolverine Tower Property	13.34	2,893,537.17	0.1=0=:		2,893,53
Total Ann Arbor Area-General	1,699.90	32,782,526.92	6,170,748.25	1 -	38,953,27

UNIVERSITY OF MICHIGAN - PHYSICAL PROPERTIES

Year Ended June 30, 2013

	201	2-2	01	3
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2-2013	1	Balance			Balance
	Acreage	June 30, 2012	Additions	Disposals	June 30, 201
Auxiliary Activities:	Acreage	00110 00, 2012	7 taattoris	Disposais	June 30, 201
Student Residences:					
Barbour, Betsy, House	1.09	16,398.50			16,398.5
Cook, Martha	2.00	60,478.89			60,478.8
Couzens Hall	2.40	2,350.00			2,350.0
East Quadrangle	3.34	376,216.84			376,216.8
Fletcher Hall	0.21	1,500.00			1,500.0
Henderson, Mary Barton, House	0.41	6,244.53			6,244.
Lloyd, Alice C., Hall	1.97	5,137.39			5,137.3
Markley, Mary Butler, Hall	2.94	2,276.23			2,276.
Mosher-Jordan Hall	1.60	87,053.62			87,053.0
Newberry, Helen, Residence	0.25	25,383.56			25,383.
Oxford Housing	4.21	148,664.84			148,664.
South Quadrangle	2.93	311,029.06			311,029.
Stockwell Hall	2.19	80,916.53			80,916.
West Quadrangle	3.87	354,317.40			354,317.
Subtotal Student Residences	29.41	1,477,967.39	-	-	1,477,967.
Information Systems and Sandage	0.33	35,000.00			25,000
Information Systems and Services		,			35,000.
Varsity Drive Building	26.59	60,000.00			60,000.
Health Services	0.36 226.25	63,277.69		1	63,277.
Intercollegiate Athletics		480,385.37			480,385
ITD - Arbor Lakes	23.47	3,578,235.00			3,578,235.
Michigan League	3.43	332,105.23			332,105
Michigan Union	2.75	86,251.19			86,251.
Kinesiology	0.26	59,599.50			59,599.
Parking Facilities	26.17	4,239,709.91			4,239,709
Plant	21.85	224,651.02			224,651
Printing and Warehouse	26.89	273,545.92			273,545
Radrick Farms	652.32	1,337,952.18			1,337,952
Rental Properties	7.17	624,448.60			624,448.
Student Publications	0.50	61,181.81			61,181.
University Hospitals Group	497.40	31,660,142.22			31,660,142.
Zina Pitcher Place 115	0.28	755,776.42			755,776.
Zina Pitcher Place 103 Total Ann Arbor Area-Auxiliary	0.04 1,545.48	905,962.54 46,256,191.99	_		905,962. 46,256,191.
Total Ann Arbor Area				_	
	3,245.39	79,038,718.91	6,170,748.25	-	85,209,467.
Out-State Area:					
General:	000.07	00 040 40			00.040
Base Lake Farms	206.07	30,013.13			30,013
Biological Station	10,198.92	762,782.29			762,782
Camp Davis - Wyoming	120.00	53,125.00			53,125
Camp Knight Douglas Lake Property	45.00	1,806,478.00			1,806,478
Dearborn, UM	227.72	10,655,616.97			10,655,616
Flint, UM	47.84	1,006,057.04			1,006,057
Fresh Air Camp	170.29	12,000.00			12,000
George, E.S., Reserve	1,356.78	98,782.77			98,782
Harper, William A. P., Reserve	330.00	3,208.22			3,208
Missaukee County	440.00	5,500.00			5,500
Mud Lake	257.91	18,531.16			18,531
Observatory and Radio Station - Portage Lake	147.40	8,319.74			8,319
Osborn Preserve	3,187.63	360,568.93			360,568
Pell's Island, Douglas Lake	3.50	1.00			1
Rackham Educational Memorial - Detroit	2.68	410,911.18			410,911
"Ringwood" Forest Reserve	160.00	2,600.00			2,600
St. Pierre Wetlands Preserve	129.44	1.00			1
Stinchfield Woods	664.39	28,782.10			28,782
Yankee Springs Twnshp	20.96	290,238.46			290,238
Total Out-State Area-General	17,716.53	15,553,516.99	-	-	15,553,516
Auxiliary Activities:					
Willow Run Properties	156.23	151,301.06			151,301
Total Out-State Area	17,872.75	15,704,818.05	-	-	15,704,818
Total Land	21,118.14	\$ 94,743,536.96	\$ 6,170,748.25	\$ -	\$ 100,914,285

Section IV

Facility Assessment

List of University of Michigan – Ann Arbor Buildings with Type, Year Built/Acquired, Square Footage, Original Cost, Replacement Cost, and Deferred Maintenance Backlog

				Yea	r		Costs	
								Deferred
								Maintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	Backlog
1005200	1009 CORNWELL PLACE	Income Properties	3,340	12/2/2005	1/1/1886	\$ 1,058,749	\$ 1,090,511	
1008060	101 SIMPSON ROAD	Clinical Delivery System	2,791	1/1/1988	1/1/1988	\$ 118,856	\$ 203,219	
1008039	1011 CORNWELL PLACE	Income Properties	2,879	1/1/1986	1/1/1951	tbd	tbd	
1005201	1013 CORNWELL PLACE	Income Properties	1,392	12/2/2005	1/1/1900	\$ 441,251	\$ 454,489	
1008040	1014 CORNWELL PLACE	Income Properties	4,949	1/1/1986	1/1/1894	tbd	tbd	
1000327	1018 FULLER BUILDING	Clinical Delivery System	8,349	1/1/1974	1/1/1965	·	\$ 1,271,634	
1000853	1019 FERDON RD	Income Properties	3,581	1/1/1920	1/1/1930			
1000874	1021 EAST HURON BUILDING	Teach, Research, Support	4,870	1/1/1967	1/1/1967	, and the second	\$ 175,797	\$ 544,780
1000205	1027 EAST HURON BUILDING	Teach, Research, Support	6,066	1/1/1937	1/1/1937	·	\$ 593,464	\$ 1,231,365
1000816	1032 GREENE BUILDING	Administration & Support	5,877	1/1/1975	1/1/1975	\$ 92,867	\$ 314,699	\$ 1,251,684
1000829	1322 WILMOT	Income Properties	1,819	1/1/1966	1/1/1919	tbd	tbd	
1000891	1736 BROADWAY GARAGE	Income Properties	480	1/1/1965	1/1/1965	, and the second	\$ 20,837	
1000885	1736 BROADWAY HOUSE	Income Properties	2,970	1/1/1965	1/1/1965	· · · · · · · · · · · · · · · · · · ·	\$ 107,788	
1005179	202 SOUTH THAYER BUILDING	Teach, Research, Support	59,825	6/2/2006	3/30/2005	\$ 17,564,591	\$ 18,091,529	\$ 0
1000335	300 400 N INGALLS BOILER HSE	Administration & Support	9,870	1/1/1977	1/1/1955	\$ 127,341	\$ 1,270,955	\$ 1,008,005
1000332	300 N INGALLS BUILDING	TeachResSupport/CDS	325,677	1/1/1955	1/1/1955	\$ 4,959,213	\$ 50,923,533	\$ 34,632,991
1000881	431 GLEN AVE	Income Properties	4,953	1/1/1985	1/1/1964	\$ 93,106	\$ 662,660	
1005327	439 S DIVISION STREET	Income Properties	3,210	12/17/2010	1/1/1900	tbd	tbd	
1008038	511 GLEN AVENUE	Income Properties	1,619	1/1/1988	1/1/1910	tbd	tbd	
1005287	523 SOUTH DIVISION BUILDING	Administration & Support	9,315	12/3/2010	12/3/2010	tbd	tbd	
1005298	990 BROADWAY	Teach, Research, Support	11,948	12/21/2009	1/1/1965	\$ 600,000	\$ 618,000	
1000815	ADMINISTRATIVE SERVICES	Administration & Support	91,653	1/1/1963	1/1/1963	\$ 2,171,851	\$ 13,540,024	\$ 8,230,243
1000423	AERO ENG LAB PUMPING STATION	Teach, Research, Support	2,456	1/1/1955	1/1/1955	\$ 75,917	\$ 757,706	
1000426	AERO ENG POWER PLANT	Teach, Research, Support	697	1/1/1955	1/1/1955	\$ 19,658	\$ 196,196	
1000425	AEROSPACE ENGINEERING LAB PLASMA RESEARCH	Teach, Research, Support	25,941	1/1/1961	1/1/1961	\$ 762,044	\$ 1,751,590	
1000422	AEROSPACE ENGINEERING LAB PROPULSION LAB	Teach, Research, Support	8,067	1/1/1955	1/1/1955	\$ 249,868	\$ 2,413,863	\$ 1,867,640
1000421	AEROSPACE ENGINEERING LAB WIND TUNNEL LAB	Teach, Research, Support	14,171	1/1/1955	1/1/1955	-	\$ 2,944,094	
1000192	ALUMNI CENTER	Administration & Support	34,083	1/1/1983	1/1/1983	\$ 3,349,765	\$ 6,348,475	\$ 2,287,185
1005123	ALUMNI FIELD	Intercollegiate Athletics Bldg	6,000	1/1/2008	1/1/2008	\$ 4,876,870	\$ 5,023,176	
1000151	ALUMNI MEMORIAL HALL	Teach, Research, Support	99,304	1/1/1910	1/1/1910	\$ 34,045,746	\$ 46,707,596	\$ 133,115
1000206	ANGELL HALL AUDITORIUMS	Teach, Research, Support	28,756	1/1/1952	1/1/1952	\$ 484,698	\$ 5,381,791	\$ 815,935
1000152	ANGELL JAMES B HALL AND TISCH HALL	Teach, Research, Support	200,233	1/1/1924	1/1/1924	\$ 8,862,614	\$ 37,838,525	\$ 1,860,540
1000168	ANIMAL RESEARCH FACILITY	Teach, Research, Support	15,587	1/1/1963	1/1/1963	\$ 505,113	\$ 3,745,918	\$ 2,562,329
1005132	ANN STREET PARKING STRUCTURE	Parking Structure	189,202	11/1/2009	11/1/2009	\$ 11,227,428	\$ 11,564,250	
1005228	ARBOR HEIGHTS BUILDING	Administration & Support	16,600	7/1/2012	1/1/1900	tbd	tbd	
1005229	ARBOR HEIGHTS TRAILERS	Administration & Support	4,200	7/1/2012	10/4/2007	tbd	tbd	
1008079	ARBOR LAKES 1	AdminSupport/CDS	39,867	9/30/1997	1/1/1976	\$ 13,000,000	\$ 40,303,900	\$ 2,061,299
1008080	ARBOR LAKES 2	AdminSupport/CDS	86,635	9/30/1997	1/1/1978	tbd	tbd	\$ 9,171,837
1008081	ARBOR LAKES 3	AdminSupport/CDS	86,330	9/30/1997	1/1/1980	tbd	tbd	\$ 10,443,814
1000831	ARGUS II	Administration & Support	69,214	1/1/1963	1/1/1963	\$ 235,625	\$ 1,740,111	\$ 4,857,924
1000432	ART ARCHITECTURE BUILDING	Teach, Research, Support	225,157	1/1/1974	1/1/1974	\$ 7,688,129	\$ 27,439,971	\$ 8,241,951

				Year			Costs	
				100	u		Costs	Deferred
								Maintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	Backlog
1000803	ATHLETIC CAMPUS SWITCH STATION	Switching Stations	2,467	1/1/1973	1/1/1973		\$ 4,633	
1005195	ATHLETICS MAINTENANCE BUILDING	Intercollegiate Athletics Bldg	1,472	1/1/1985	1/1/1985	tbd	tbe	
1005168	AUTO LAB FUEL STORAGE BUILDING	Teach, Research, Support	423	1/1/2005	1/1/2005		\$ 509,850	
1002501	AUXILIARY SERVICES BUILDING 1	Administration & Support	81,737	1/1/1983	1/1/1968		\$ 9,981,26	
1002502	AUXILIARY SERVICES BUILDING 2	Administration & Support	2,893	1/1/1983	1/1/1983	tbd	ψ	
1002503	AUXILIARY SERVICES BUILDING 3	Administration & Support	6,923	1/1/1983	1/1/1983	tbd	tbe	
1000395	BAGNOUD FRANCOIS-XAVIER BUILDING	Teach, Research, Support	101,812	1/1/1991	1/1/1991	\$ 14,750,000	\$ 22,940,673	
1005236	BAHNA WRESTLING CENTER	Intercollegiate Athletics Bldg	22,072	1/1/2009	1/1/2009	tbd	tbe	
1000510	BAITS VERA I EATON HOUSE	Residence	36,123	1/1/1966	1/1/1966		\$ 4,995,558	
1000510	BAITS VERA I LEE HOUSE	Residence	33,019	1/1/1966	1/1/1966			
1000511	BAITS VERA I PARKER HOUSE	Residence	34,461	1/1/1966	1/1/1966		\$ 4,768,488	
1000512	BAITS VERA I SMITH HOUSE	Residence	29,215	1/1/1966	1/1/1966		\$ 3,860,204	
1000513	BAITS VERA I STANLEY HOUSE	Residence	32,625	1/1/1966	1/1/1966		\$ 4,541,41	
1000515	BAITS VERA II COMAN HOUSE	Residence	52,102	1/1/1967	1/1/1967		\$ 7,027,59	
1000516	BAITS VERA II CONGER HOUSE	Residence	26,935	1/1/1967	1/1/1967			
1000517	BAITS VERA II CROSS HOUSE	Residence	35,178	1/1/1967	1/1/1967		\$ 4,307,23	
1000517	BAITS VERA II THIEME HOUSE	Residence	25,476	1/1/1967	1/1/1967	·		
1000519	BAITS VERA II ZIWET HOUSE	Residence	34,865	1/1/1967	1/1/1967		\$ 4,307,23	
100051	BARBOUR BETSY HOUSE	Residence	33,884	1/1/1920	1/1/1920		\$ 3,706,469	
1005290	BAXTER ROAD MONITORING SHED	Administration & Support	49	11/10/2010	11/10/2010	tbd	tbe	
1000439	BENTLEY ALVIN M & ARVELLA D HISTORICAL LIBRARY	Library Building	66,532	1/1/1973	1/1/1973		\$ 10,422,043	
1005348	BONISTEEL INTERDISCIPLINARY RESEARCH BUILDING	Teach, Research, Support	21,993	1/1/1954	1/1/1954			
1000880	BOYER BUILDING	Administration & Support	15,473	1/1/1996	1/1/1969		\$ 5,572,300	
1005102	BREHM TOWER	TeachResSupport/CDS	252,234	12/19/2009	2/20/2007		\$ 93,730,000	
1008076	BRIARWOOD 1	TeachResSupport/CDS	14,532	1/1/1993	1/1/1993	tbd	tbe	
1008130	BRIARWOOD 10	Clinical Delivery System	14,986	10/1/1996	10/12/1995		\$ 1,619,733	
1008030	BRIARWOOD 2	TeachResSupport/CDS	15,924	1/1/1988	1/1/1988	tbd	tbe	
1008065	BRIARWOOD 3	Clinical Delivery System	10,611	1/1/1991	1/1/1991		_	
1008042	BRIARWOOD 4	Clinical Delivery System	14,063	5/1/1995	1/1/1991	\$ 9,875,000	\$ 15,358,588	
1008016	BRIARWOOD 5	Clinical Delivery System	9,378	6/1/1995	1/1/1986	tbd	tbe	
1008142	BRIARWOOD 9	Clinical Delivery System	5,287	10/7/1998	12/8/1997		\$ 1,429,210	
1000407	BROWN GEORGE GRANGER MEMORIAL LABORATORIES	Teach, Research, Support	219,872	1/1/1957	1/1/1957		\$ 42,565,885	
1000210	BUHL LAWRENCE D RESEARCH CEN FOR HUMAN GENETICS	Teach, Research, Support	18,971	1/1/1964	1/1/1964			
1000799	BUHR BUILDING	Administration & Support	187,245	1/1/1977	1/1/1952		\$ 16,335,733	
1000010	BURNHAM HOUSE	Teach, Research, Support	3,447	8/24/1995	1/1/1837		\$ 1,371,130	
1000555	BURSLEY JOSEPH A & MARGUERITE K HALL	Residence	341,747	1/1/1967	1/1/1967		\$ 47,480,365	
1000155	BURTON MEMORIAL TOWER	Teach, Research, Support	20,103	1/1/1936	1/1/1936		\$ 5,749,40	
1000139	BUSINESS ADMIN EXECUTIVE DORM	Teach, Research, Support	50,129	1/1/1986	1/1/1985		\$ 10,395,860	
1000742	CAMPUS SAFETY SERVICES BUILDING	Administration & Support	108,241	1/1/1992	1/1/1978			
1000301	CANCER CENTER	TeachResSupport/CDS	277,795	1/1/1993	9/1/1993		\$ 118,683,604	
1000718	CANHAM DONALD B NATATORIUM	Intercollegiate Athletics Bldg	77,721	1/1/1988	1/1/1988		\$ 13,492,422	

				Yea	r				
				100	1		Costs	$\overline{}$	Deferred
								1	Maintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	1,	Backlog
1005146	CARDIOVASCULAR CENTER PARKING STRUCTURE	Parking Structure	168,572	9/22/2009	9/22/2009			3	Bucking
1000258	CATHERINE ST PARKING STRUCTURE	Parking Structure	140,168	1/1/1959	1/1/1959		\$ 4,813,70	_	
1005126	CENTRAL CAMPUS AND UM HOSPITAL LOAD CENTER	Switching Stations	3,884	6/16/2006	6/16/2006		\$ 17,510,00	_	
1000226	CENTRAL CAMPUS REC BLD BELL MARGARET POOL	Recreational Sports Building	194,265	1/1/1954	1/1/1954		\$ 27,280,72		13,960,774
1005042	CENTRAL CAMPUS REC BLD STORAGE FACILITY	Recreational Sports Building	739	10/19/1999	10/19/1999		\$ 210,01		13,500,771
1000260	CENTRAL POWER PLANT	Administration & Support	124,114	1/1/1914	1/1/1914		\$ 30,429,92	_	60,484,751
1000158	CHEMISTRY & DOW WILLARD H LABORATORY	Teach, Research, Support	542,905	1/1/1909	1/1/1909		\$ 126,446,33	_	18,457,552
1000443	CHRYSLER CENTER CONTINUING ENGINEERING EDUCATION	Teach, Research, Support	45,310	1/1/1968	1/1/1968				1,743,567
1000257	CHURCH ST PARKING STRUCTURE	Parking Structure	228,214	1/1/1957	1/1/1957			_	3,477,075
1000159	CLEMENTS WILLIAM L LIBRARY	Library Building	17,248	1/1/1923	1/1/1923		\$ 5,071,72		-, ,
1000710	COLISEUM	Recreational Sports Building	38,404	1/1/1926	1/1/1926		\$ 12,445,55		1,593,130
1000230	COLLEGE OF PHARMACY BUILDING	Teach, Research, Support	56,751	1/1/1960	1/1/1960		\$ 16,008,57	_	2,854,137
1000138	COMPUTER EXECUTIVE EDUCATION BLD	Teach, Research, Support	56,180	1/1/1985	1/1/1985		\$ 8,730,47		1,016,626
1005092	COMPUTER SCIENCE ENGINEERING BUILDING	Teach, Research, Support	104,132	3/16/2006	3/16/2006		\$ 39,017,43	_	0
1000109	COOK JOHN P BUILDING	Residence	47,506	1/1/1930	1/1/1930	\$ 550,770	\$ 16,411,78	_	
1000052	COOK MARTHA BUILDING	Residence	63,234	1/1/1915	1/1/1915		\$ 19,928,44		18,725,710
1000184	COOK WILLIAM W LEGAL RESEARCH LIBRARY	Library Building	212,594	1/1/1931	1/1/1931	\$ 11,829,293	\$ 81,943,63	7 \$	12,647,689
1000403	COOLEY MORTIMER E BUILDING	Teach, Research, Support	46,172	1/1/1953	1/1/1953	\$ 1,098,984	\$ 11,515,46	5 \$	3,302,851
1000053	COUZENS HALL	Residence	181,745	1/1/1925	1/1/1925	\$ 2,386,668	\$ 33,907,38	3 \$	43,853,023
1000498	CRAM PLACE COMMUNITY CENTER	Residence	7,009	1/1/1958	1/1/1958	\$ 120,714	\$ 1,053,12	0	
1000700	CRISLER CENTER	Intercollegiate Athletics Bldg	201,311	1/1/1968	1/1/1968	\$ 6,365,606	\$ 38,224,82	9 \$	2,307,838
1000189	DANA SAMUEL TRASK BUILDING	Teach, Research, Support	117,148	1/1/1904	1/1/1904	\$ 160,000	\$ 12,097,96	8 \$	218,529
1000225	DANCE BUILDING	Teach, Research, Support	12,036	1/1/1977	1/1/1977	\$ 498,363	\$ 1,483,47	7 \$	1,170,059
1005289	DAVIDSON WILLIAM PLAYER DEVELOPMENT CENTER	Intercollegiate Athletics Bldg	57,000	8/1/2012	8/1/2012	tbd	tb	d	
1000165	DENNISON DAVID M BUILDING	Teach, Research, Support	143,115	1/1/1963	1/1/1963	\$ 6,473,271	\$ 28,119,61	8 \$	16,333,912
1000162	DENTAL BLDG AND W K KELLOGG FOUNDATION INSTITUTE	Teach, Research, Support	378,556	1/1/1940	1/1/1940	\$ 16,829,917	\$ 85,031,64	4 \$	30,351,443
1000198	DETROIT OBSERVATORY	Teach, Research, Support	5,370	1/1/1854	1/1/1854	\$ 55,799	\$ 7,857,13	5 \$	225,600
1000447	DOW HERBERT H BUILDING	Teach, Research, Support	154,679	1/1/1983	1/1/1983	\$ 14,612,455	\$ 27,811,60	1 \$	7,729,576
1000396	DUDERSTADT JAMES AND ANNE CENTER	Teach, Research, Support	240,372	1/31/1996	12/1/1993	\$ 41,850,000	\$ 57,330,31	5 \$	4,605,246
1005038	EAST ANN ARBOR AMBULATORY SURGICAL CENTER	Clinical Delivery System	49,906	4/1/2006	6/1/2005	\$ 24,080,032	\$ 24,802,43	3 \$	0
1000350	EAST ANN ARBOR HEALTH AND GERIATRICS CENTER	Clinical Delivery System	97,158	1/1/1995	1/1/1996	\$ 30,710,000	\$ 42,069,62	9 \$	3,958,452
1000166	EAST HALL	Teach, Research, Support	351,241	1/1/1923	1/1/1923	\$ 2,373,924	\$ 40,902,24	1 \$	5,336,813
1000306	EAST HOSPITAL MECHANICAL BLDG	Clinical Delivery System	8,006	1/1/1964	1/1/1964	\$ 206,982	\$ 1,492,34	3 \$	6,205,415
1000054	EAST QUADRANGLE	Residence	319,574	1/1/1940	1/1/1940	\$ 3,070,488	\$ 50,877,23	8 \$	62,208,106
1000221	EDUCATION SCHOOL OF	Teach, Research, Support	215,403	1/1/1923	1/1/1923		\$ 27,809,36	_	9,266,877
1008072	EISENHOWER CORPORATE PARK WEST	Clinical Delivery System	76,726	1/1/1994	1/1/1990	\$ 7,650,000	\$ 12,055,63	5 \$	2,419,918
1000728	ELBEL FIELD LOCKER BUILDING	Recreational Sports Building	5,922	1/1/1951	1/1/1951				635,213
1000448	ELECTRICAL ENGINEERING AND COMPUTER SCIENCE BLD	Teach, Research, Support	305,021	1/1/1986	1/1/1986		\$ 54,436,23	_	10,402,905
1000435	ENGINEERING RESEARCH BUILDING 1	Teach, Research, Support	36,033	1/1/1964	1/1/1964			_	5,480,796
1000436	ENGINEERING RESEARCH BUILDING 2	Teach, Research, Support	28,332	1/1/1964	1/1/1964	\$ 1,025,200		_	3,127,334
1002505	ENGINEERING RESEARCH SUPPORT BLD	Teach, Research, Support	1,432	1/1/1996	3/1/1997	tbd	tb	d	

				Year	r			Costs		
									-	Deferred
									M	laintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Rep	placement	1	Backlog
1000414	ENVIRONMENTAL AND WATER RESOURCES ENGINEERING BL	Teach, Research, Support	37,125	1/1/1975	1/1/1975	\$ 2,010,376	\$	6,812,562	\$	3,576,616
1000269	EQUIPMENT MAINTENANCE SHOP	Teach, Research, Support	2,151	1/1/1948	1/1/1914	\$ 20,100	\$	716,413	\$	11,566
1000800	FACILITIES SERVICES BUILDING A	Administration & Support	93,237	1/1/1956	1/1/1929	\$ 2,569,992	\$	23,783,795	\$	6,575,617
1000801	FACILITIES SERVICES BUILDING B	Administration & Support	44,682	1/1/1956	1/1/1929	\$ 476,729	\$	11,786,718	\$	2,696,281
1000802	FACILITIES SERVICES BUILDING C	Administration & Support	37,309	1/1/1956	1/1/1929	\$ 320,934	\$	8,184,724	\$	2,334,412
1000756	FERRY FIELD LOCKER ROOMS	Intercollegiate Athletics Bldg	7,138	1/1/1996	1/1/1996	\$ 1,675,962	\$	2,295,900		
1000706	FERRY FIELD PUMP HOUSE	Intercollegiate Athletics Bldg	216	1/1/1968	1/1/1968	tbd		tbd		
1000409	FIRE SERV INSTR RES CENTER	Teach, Research, Support	21,528	1/1/1959	1/1/1959	\$ 293,306	\$	2,480,287	\$	1,279,776
1000733	FISHER RAY BASEBALL STADIUM	Intercollegiate Athletics Bldg	30,167	1/1/1950	1/1/1950	\$ 125,975	\$	1,571,327		
1000149	FLEMING ROBBEN W & ALDYTH ADMINISTRATION BUILDING	Administration & Support	78,759	1/1/1968	1/1/1968	\$ 2,727,881	\$	16,380,650	\$	15,391,996
1000055	FLETCHER HALL	Residence	18,014	1/1/1933	1/1/1923	\$ 130,227	\$	3,263,472	\$	6,519,842
1000254	FLETCHER ST PARKING STRUCTURE	Parking Structure	387,236	1/1/1968	1/1/1968	\$ 2,903,921	\$	17,437,757		
1000446	FORD GERALD R LIBRARY	Library Building	47,099	1/1/1980	1/1/1980	\$ 3,900,673	\$	9,200,517	\$	2,315,228
1000405	FORD NUCLEAR REACTOR	Teach, Research, Support	17,923	1/1/1955	1/1/1955	\$ 849,126	\$	8,474,869	\$	0
1000252	FOREST SWITCHING STATION	Switching Stations	6,122	1/1/1988	1/1/1988	tbd		tbd		
1000234	FRANCIS THOMAS JR PUBLIC HEALTH	Teach, Research, Support	171,437	1/1/1971	1/1/1971	\$ 7,241,566	\$	32,893,366	\$	7,259,532
1000810	GAS PAD STORAGE BUILDING	Administration & Support	1,440	1/1/1990	1/1/1990	tbd		tbd		
1000437	GERSTACKER CARL A BUILDING	Teach, Research, Support	61,692	1/1/1964	1/1/1964	\$ 10,403,678	\$	15,422,075	\$	3,485,858
1000331	GLEN AVE PARKING STRUCTURE	Parking Structure	332,917	1/1/1987	1/1/1987	\$ 9,926,739	\$	16,870,494	\$	-
1005121	GLICK AL FIELD HOUSE	Intercollegiate Athletics Bldg	105,709	1/1/2009	1/1/2009	tbd		tbd		
1000725	GOLF CLUBHOUSE	Intercollegiate Athletics Bldg	22,737	1/1/1950	1/1/1950	\$ 266,440	\$	3,323,392	\$	1,005,818
1000737	GOLF COURSE CART SHED	Intercollegiate Athletics Bldg	793	1/1/1966	1/1/1966	\$ 2,524	\$	16,661		
1000747	GOLF COURSE COMFORT STATION A	Intercollegiate Athletics Bldg	533	1/1/1994	1/1/1994	tbd		tbd		
1000748	GOLF COURSE COMFORT STATION B	Intercollegiate Athletics Bldg	467	1/1/1994	1/1/1994	tbd		tbd		
1000741	GOLF COURSE GARAGE	Intercollegiate Athletics Bldg	3,585	1/1/1956	1/1/1956	tbd		tbd		
1005100	GOLF COURSE MAINTENANCE BUILDING	Intercollegiate Athletics Bldg	5,555	1/1/2007	1/1/2007	\$ 789,068	\$	812,740		
1000749	GOLF COURSE PRACTICE RANGE BLDG	Intercollegiate Athletics Bldg	720	1/1/1994	1/1/1994	\$ 137,545	\$	192,673		
1000740	GOLF COURSE PUMP HOUSE I	Intercollegiate Athletics Bldg	120	1/1/1992	1/1/1992	tbd		tbd		
1000739	GOLF COURSE PUMP HOUSE II	Intercollegiate Athletics Bldg	336	1/1/1992	1/1/1992	\$ 195,000	\$	297,258		
1000735	GOLF COURSE SHOPS	Intercollegiate Athletics Bldg	2,608	1/1/1957	1/1/1957	tbd		tbd		
1000424	GORGUZE FAMILY LABORATORY	Teach, Research, Support	29,155	1/1/1972	1/1/1972	\$ 705,715	\$	2,255,292	\$	1,795,186
1000201	HARTWIG MARIE DOROTHY ADMINISTRATION BUILDING	Intercollegiate Athletics Bldg	14,550	1/1/1912	1/1/1912		_	3,660,574	\$	1,102,040
1000185	HATCHER H NORTH GRADUATE LIBRARY	Library Building	195,748	1/1/1920	1/1/1920	\$ 1,362,762	\$	19,539,255	\$	6,693,101
1000181	HATCHER HARLAN H SOUTH GRADUATE LIBRARY	Library Building	147,526	1/1/1970	1/1/1970	\$ 4,932,431	\$	24,995,588	\$	7,632,014
1000175	HAVEN HALL	Teach, Research, Support	123,510	1/1/1952	1/1/1952			45,151,811	\$	0
1000897	HEALTH MANAGEMENT RESEARCH	Teach, Research, Support	12,792	1/1/1969	1/1/1969	\$ 30,000	\$	163,461	\$	1,077,818
1000176	HEALTH SERVICE	Recreational Sports Building	79,177	1/1/1940	1/1/1940	\$ 397,088	\$	11,652,435	\$	7,053,566
1000057	HENDERSON MARY BARTRON HOUSE	Residence	9,329	1/1/1945	1/1/1892	· ·	\$	2,589,183	\$	3,170,393
1000177	HILL AUDITORIUM	Recreational Sports Building	105,813	1/1/1913	1/1/1913	·		15,565,425	\$	1,793,495
1000253	HILL ST PARKING STRUCTURE	Parking Structure	151,160	1/1/1970	1/1/1970			7,225,434		
1000314	HOLDEN JAMES & LYNELLE PERINATAL RESEARCH LAB	Clinical Delivery System	20,779	1/1/1972	1/1/1972	·	_	6,330,463	\$	1,148,685

				Year		T (Costs		
				19			T			Deferred
									M	laintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	F	Replacement		Backlog
1000804	HOOVER ANNEX	Administration & Support	1,889	1/1/1956	1/1/1929	\$ 19,430	\$	495,523	\$	89,899
1000805	HOOVER AVE HEATING PLANT	Administration & Support	6,990	1/1/1956	1/1/1929	\$ 454,812	\$	2,986,079		
1000179	HUTCHINS HALL	Teach, Research, Support	104,374	1/1/1933	1/1/1933	\$ 1,191,074	\$	44,999,263	\$	8,051,289
1000703	INDOOR TRACK BUILDING	Intercollegiate Athletics Bldg	69,183	1/1/1974	1/1/1974	\$ 1,020,469	\$	3,689,300	\$	2,830,003
1000429	INDUSTRIAL AND OPERATIONS ENGINEERING BUILDING	Teach, Research, Support	50,260	1/1/1963	1/1/1963	\$ 1,205,811	\$	6,146,876	\$	2,246,496
1000862	INGLIS CARETAKERS RESIDENCE	Administration & Support	2,342	1/1/1950	1/1/1927	\$ 5,000	\$	127,514		
1000868	INGLIS GREENHOUSE #2	Administration & Support	459	1/1/1975	1/1/1975	tbd		tbd		
1000867	INGLIS GREENHOUSE AND GARAGE	Administration & Support	1,069	1/1/1950	1/1/1950	\$ 2,000	\$	20,415		
1000861	INGLIS HOUSE	Administration & Support	10,622	1/1/1950	1/1/1927	\$ 54,016	\$	1,377,552	\$	3,044,274
1000863	INGLIS PEACOCK HOUSE	Administration & Support	88	1/1/1950	1/1/1927	tbd		tbd		
1000866	INGLIS ROOT CELLAR	Administration & Support	131	1/1/1950	1/1/1927	tbd		tbd		
1000864	INGLIS STORAGE BUILDING	Administration & Support	147	1/1/1950	1/1/1927	tbd		tbd		
1000865	INGLIS WELL HOUSE	Administration & Support	292	1/1/1950	1/1/1927	tbd		tbd		
1000145	INSTITUTE FOR SOCIAL RESEARCH	Teach, Research, Support	169,400	1/1/1965	1/1/1965	\$ 8,207,205	\$	27,426,969	\$	11,956,312
1000814	INSTITUTE OF CONTINUING LEGAL ED	Teach, Research, Support	12,592	1/1/1987	1/1/1987	\$ 1,316,460	\$	2,237,323	\$	913,420
1005247	INTERCOLLEGIATE SOCCER STADIUM	Intercollegiate Athletics Bldg	17,368	1/1/2009	1/1/2009	tbd		tbd		
1000719	INTRAMURAL SPORTS BUILDING	Recreational Sports Building	106,330	1/1/1928	1/1/1928	\$ 743,214	\$	19,642,987	\$	18,312,198
1000434	IST GAS STORAGE BUILDING	Teach, Research, Support	200	1/1/1964	1/1/1964	\$ 5,000	\$	35,896		
1005160	JUNGE FAMILY CHAMPIONS CENTER	Intercollegiate Athletics Bldg	11,743	12/1/2006	1/1/2006	\$ 4,082,595	\$	4,205,073		
1000732	KEEN CLIFFORD P ARENA	Intercollegiate Athletics Bldg	38,816	1/1/1956	1/1/1956	\$ 828,072	\$	7,872,398	\$	3,430,358
1000324	KELLOGG W K EYE CENTER	Teach, Research, Support	79,249	1/1/1985	1/1/1985	\$ 4,150,652	\$	7,396,046	\$	5,166,638
1000851	KINESIOLOGY BUILDING	Teach, Research, Support	31,331	1/1/1966	1/1/1966	\$ 366,111	\$	2,417,175	\$	0
1000211	KRAUS EDWARD HENRY BUILDING	Teach, Research, Support	182,971	1/1/1915	1/1/1915	\$ 2,440,994	\$	28,846,539	\$	19,793,679
1000137	KRESGE BUSINESS ADMIN LIBRARY	Library Building	75,164	1/1/1985	1/1/1985	\$ 10,119,921	\$	18,032,688	\$	3,725,359
1000183	LANE HALL	Teach, Research, Support	39,993	1/1/1937	1/1/1917	\$ 70,000	\$	2,894,094	\$	817,679
1000419	LAUNDRY	Clinical Delivery System	48,521	1/1/1969	1/1/1969	\$ 1,303,333	\$	7,262,561	\$	3,024,698
1005045	LAW SCHOOL ADMISSIONS	Teach, Research, Support	4,818	1/1/1999	1/1/1910	\$ 12,024	\$	729,832		
1000108	LAWYERS CLUB AND MUNGER CHARLES T RESIDENCES	Residence	111,655	1/1/1924	1/1/1924	\$ 1,430,900	\$	37,066,749	\$	41,517,798
1000400	LAY WALTER E AUTOMOTIVE ENGINEERING LABORATORY	Teach, Research, Support	63,295	1/1/1955	1/1/1955	\$ 2,850,378	\$	21,189,290	\$	6,846,576
1005036	LIFE SCIENCES INSTITUTE BUILDING	Teach, Research, Support	295,882	9/1/2003	12/1/1999	\$ 96,000,000	\$	110,745,600	\$	182,401
1000105	LIPSEY STANFORD STUDENT PUBLICATIONS BUILDING	Recreational Sports Building	14,829	1/1/1932	1/1/1932	\$ 74,725	\$	2,790,047	\$	
1000150	LITERATURE SCIENCE AND THE ARTS	Teach, Research, Support	129,755	1/1/1948	1/1/1948	\$ 2,234,325	\$	28,329,677	\$	106,340
1000188	LITTLE CLARENCE COOK SCIENCE BLD	Teach, Research, Support	187,435	1/1/1925	1/1/1925	\$ 5,317,635	\$	29,539,508	\$	4,390,358
1000059	LLOYD ALICE CROCKER HALL	Residence	176,305	1/1/1949	1/1/1949	\$ 2,713,694	\$	33,708,962	\$	42,304,238
1000154	LORCH HALL	Teach, Research, Support	89,470	1/1/1928	1/1/1928		\$	13,853,229	\$	8,424,565
1000214	LSA ADMINISTRATION ANNEX	Teach, Research, Support	10,693	1/1/1936	1/1/1936	\$ 36,060	\$	1,207,102	\$	1,774,161
1000406	LURIE ANN AND ROBERT H BIOMEDICAL ENGINEERING BLD	Teach, Research, Support	65,028	1/1/1957	1/1/1957	\$ 19,655,206	\$	3,991,819	\$	856,492
1000394	LURIE ANN AND ROBERT H TOWER	Teach, Research, Support	11,452	1/1/1995	5/1/1995	\$ 5,275,000	\$	7,226,223	\$	980,918
1000397	LURIE ROBERT H ENGINEERING CTR	Teach, Research, Support	53,877	1/1/1994	12/1/1993	\$ 16,500,000	\$	22,603,350	\$	1,796,231
1000858	MADISON BUILDING	Teach, Research, Support	22,318	1/1/1970	1/1/1970	\$ 349,480	\$	1,785,423	\$	210,430
1000060	MARKLEY MARY BUTLER HALL	Residence	287,033	1/1/1959	1/1/1959	\$ 5,582,907	\$	47,210,739	\$	58,820,984

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					-		Costs		Deferred
								M	laintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement		Backlog
1000197	MASON HALL	Teach, Research, Support	136,290	1/1/1952	1/1/1952	\$ 6,670,640	\$ 37,069,41	1 \$	684,663
1000976	MATT BOT GNDS HOUSE	Income Properties	3,650	1/1/1957	1/1/1957	\$ 19,997	\$ 171,57	2	
1000986	MATTHAEI BOT GDNS ENVIRONMENT	Teach, Research, Support	2,728	1/1/1962	1/1/1962	\$ 42,760	\$ 325,92	0	•
1000991	MATTHAEI BOT GDNS EXHIB GRN HSE	Teach, Research, Support	18,955	1/1/1966	1/1/1966	\$ 174,703	\$ 1,167,83	8	
1000983	MATTHAEI BOT GDNS GREENHOUSE #1	Teach, Research, Support	7,732	1/1/1962	1/1/1962	\$ 103,185	\$ 797,10	3	
1000984	MATTHAEI BOT GDNS GREENHOUSE #2	Teach, Research, Support	7,732	1/1/1960	1/1/1960	\$ 97,441	\$ 749,72	2	
1000988	MATTHAEI BOT GDNS GREENHOUSE #3	Teach, Research, Support	7,732	1/1/1960	1/1/1960	\$ 97,441	\$ 749,72	2	
1000989	MATTHAEI BOT GDNS GREENHOUSE #4	Teach, Research, Support	2,462	1/1/1962	1/1/1962	\$ 35,542	\$ 274,56	1	
1000990	MATTHAEI BOT GDNS GREENHOUSE #5	Teach, Research, Support	2,462	1/1/1962	1/1/1962	\$ 35,542	\$ 274,56	1	
1000994	MATTHAEI BOT GDNS INSTR SHELTER	Teach, Research, Support	168	1/1/1978	1/1/1978	\$ 28,360	\$ 74,48	7 \$	7,264,193
1000979	MATTHAEI BOT GDNS NORTH BARN #1	Teach, Research, Support	4,241	1/1/1957	1/1/1880	tbd	tb	d	•
1000978	MATTHAEI BOT GDNS NORTH BARN #2	Teach, Research, Support	1,212	1/1/1957	1/1/1870	tbd	tb	d	
1000992	MATTHAEI BOT GDNS REPTILE HSE	Teach, Research, Support	2,935	1/1/1969	1/1/1969	\$ 37,675	\$ 145,33	0	
1000982	MATTHAEI BOT GDNS RESEARCH-ADMIN	Teach, Research, Support	22,099	1/1/1960	1/1/1960	\$ 943,247	\$ 6,872,01	3	
1000987	MATTHAEI BOT GDNS SCREENHOUSE #1	Teach, Research, Support	380	1/1/1962	1/1/1962	\$ 3,494	\$ 26,63	1	
1000980	MATTHAEI BOT GDNS STORAGE BLDG	Administration & Support	1,920	1/1/1975	1/1/1975	tbd	tb		
1000985	MATTHAEI BOT GDNS SUPT RESIDENCE	Administration & Support	2,928	1/1/1961	1/1/1961	\$ 31,270	\$ 241,56	0	
1000981	MATTHAEI BOT GDNS UTILITY-BOILER	Teach, Research, Support	10,058	1/1/1960	1/1/1960		\$ 1,641,31	6	
1000300	MED CTR N ENTRANCE PARKING STRUCTURE	Parking Structure	340,052	1/1/1994	1/1/1994		\$ 17,592,40		
1000323	MEDICAL CAMPUS SWITCH STATION SE	Switching Stations	2,746	1/1/1983	1/1/1983	\$ 947,858	\$ 1,806,14	_	
1000315	MEDICAL CENTER DR PARKING STRUCT	Parking Structure	683,932	1/1/1984	1/1/1984	•	\$ 25,871,74		
1000319	MEDICAL PROFESSIONAL BUILDING	Clinical Delivery System	37,298	1/1/1977	1/1/1977		\$ 4,701,40	_	6,787,685
1000190	MEDICAL SCIENCE UNIT I	Teach, Research, Support	298,913	1/1/1958	1/1/1958		\$ 89,265,46		26,520,465
1000200	MEDICAL SCIENCE UNIT II	Teach, Research, Support	333,205	1/1/1969	1/1/1969		\$ 71,161,28		9,430,531
1000223	MEDICAL SCIENCES RESEARCH BLDG I	Teach, Research, Support	144,644	1/1/1985	1/1/1985		\$ 23,567,20		8,294,356
1000213	MEDICAL SCIENCES RESEARCH BLDG II	Teach, Research, Support	163,724	1/1/1989	1/1/1989		\$ 34,997,48		8,876,436
1000229	MEDICAL SCIENCES RESEARCH BLDG III	Teach, Research, Support	217,897	1/1/1994	1/1/1994		\$ 72,370,37		7,570,179
1000308	MED-INN	Clinical Delivery System	125,981	1/1/1952	1/1/1952				14,010,475
1000191	MICHIGAN LEAGUE	Teach, Research, Support	130,395	1/1/1929	1/1/1929		\$ 37,605,69		18,965,760
1000404	MICHIGAN MEMORIAL PHOENIX PROJECT LABORATORY	Teach, Research, Support	34,345	1/1/1955	1/1/1955		\$ 16,631,34	_	210,635
1005218	MICHIGAN SOLAR HOUSE	Teach, Research, Support	660	1/1/2009	1/1/2009	tbd	tb	- 1	
1000711	MICHIGAN STADIUM	Intercollegiate Athletics Bldg	153,630	1/1/1927	1/1/1927		\$ 28,815,36	4	
1005242	MICHIGAN STADIUM NORTH PLAZA BUILDING A	Intercollegiate Athletics Bldg	9,029	1/1/2009	1/1/2009			_	
1005243	MICHIGAN STADIUM NORTH PLAZA BUILDING B	Intercollegiate Athletics Bldg	9,337	1/1/2009	1/1/2009		\$ 1,877,21	_	
1000120	MICHIGAN UNION	Recreational Sports Building	316,142	1/1/1919	1/1/1919		\$ 83,181,84		48,896,707
1002500	MITCHELL FIELD BUILDING	Recreational Sports Building	1,449	1/1/1981	1/1/1981				, -,-
1000207	MODERN LANGUAGES BUILDING	Teach, Research, Support	135,130	1/1/1972	1/1/1972		\$ 22,475,35		4,686,944
1005125	MODULAR ATHLETICS MAINTENANCE	Intercollegiate Athletics Bldg	506	9/25/2002	9/25/2002		tb	_	,
1005076	MODULAR GROUNDS	Administration & Support	-	J. 25, 2002	2, 25, 2002	tbd	tb	_	
1005348	MODULAR MRI BUILDING	Teach, Research, Support	824	8/21/2012	8/21/2012				
1005074	MODULAR NAVAL ARCHITECTURE AND MARINE ENGINEERING	Teach, Research, Support	672	11/1/2000	11/1/2000	tbd	tb	_	

				Year	r		Costs	
								Deferred
								aintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	Backlog
1000100	MOLECULAR & BEHAVIORAL NEUROSCIENCE INSTITUTE	Teach, Research, Support	49,955	1/1/1960	1/1/1960			\$ 7,130,698
1000440	MOORE EARL V BLDG	Teach, Research, Support	141,179	1/1/1964	1/1/1964			\$ 7,733,146
1000061	MOSHER ELIZA M HALL & JORDAN MYRA B HALL	Residence	191,152	1/1/1930	1/1/1930		\$ 44,723,244	
1005173	MOTT CHILDRENS VON VOIGTLANDER WOMENS HOSPITALS	Clinical Delivery System	1,139,406	12/1/2011	12/1/2011	tbd	tbd	
1000194	MUSEUMS ANNEX	Teach, Research, Support	14,391	1/1/1919	1/1/1919	·		\$ 2,790,553
1000220	N C GROUNDS STORAGE BUILDING #1	Administration & Support	3,373	1/1/1953	1/1/1953		\$ 86,546	\$ 196,740
1000415	NAVAL ARCHITECTURE AND MARINE ENGINEERING	Teach, Research, Support	28,207	1/1/1962	1/1/1962	\$ 1,086,947	\$ 5,828,269	\$ 2,498,102
1002518	NC BEAL-CRAM SWITCH GEAR	Switching Stations	1,804	1/1/1995	1/1/1995	tbd	tbd	
1005205	NC GROUNDS GARAGE 1	Administration & Support	1,692	6/12/2007	6/12/2007	tbd	tbd	\$ 0
1005111	NC GROUNDS STORAGE BUILDING # 2	Administration & Support	2,007	1/1/1987	1/1/1987	tbd	tbd	
1005116	NC GROUNDS STORAGE BUILDING # 3	Administration & Support	2,007	1/1/1987	1/1/1987	tbd	tbd	
1005131	NC STORAGE BUILDING #4	Administration & Support	4,792	4/8/2003	4/1/2003	\$ 75,296	tbd	
1000312	NEUROSCIENCE HOSPITAL UNIT 2	Clinical Delivery System	273,790	1/1/1969	1/1/1969	\$ 7,790,974	\$ 43,413,647	\$ 51,651,532
1000318	NEUROSCIENCE HOSPITAL UNIT 4	Clinical Delivery System	159,343	1/1/1990	1/1/1990	\$ 5,916,587	\$ 9,323,950	\$ 7,264,880
1000178	NEWBERRY HALL	Teach, Research, Support	40,574	1/1/1921	1/1/1891	\$ 7,000,838	\$ 10,463,332	\$ 673,777
1000062	NEWBERRY HELEN H RESIDENCE	Residence	31,304	1/1/1915	1/1/1915	\$ 78,129	\$ 4,325,020	\$ 8,948,647
1000222	NEWS SERVICE BUILDING	Administration & Support	7,811	1/1/1955	1/1/1955	\$ 182,137	\$ 1,464,703	\$ 1,806,988
1000007	NICHOLS ARBORETUM GAR WORKSHOP	Teach, Research, Support	308	1/1/1963	1/1/1963	\$ 5,785	\$ 42,725	
1000005	NICHOLS ARBORETUM RESIDENCE	Teach, Research, Support	2,170	1/1/1908	1/1/1908	\$ 6,887	\$ 451,219	\$ 288,191
1000006	NICHOLS ARBORETUM STORAGE SHED	Teach, Research, Support	906	1/1/1908	1/1/1908	\$ 765	\$ 50,135	\$ 50,455
1000399	NORTH CAMPUS ADMINISTRATIVE COMPLEX	TeachResSupport/CDS	133,741	1/1/1987	1/1/1987	\$ 9,620,000	\$ 16,349,190	\$ 2,491,380
1005223	NORTH CAMPUS AUXILIARY SUPPORT BUILDING	AdminSupport/CDS	53,530	9/1/2008	9/1/2008	\$ 50,900,000	\$ 52,427,000	
1005018	NORTH CAMPUS CHILDREN'S CENTER	Teach, Research, Support	13,567	6/16/2009	1/1/1999	tbd	tbd	\$ 470,323
1005139	NORTH CAMPUS CHILLER PLANT	Administration & Support	15,816	5/1/2005	10/1/2004	\$ 14,300,000	\$ 14,729,000	\$ 98,160
1002506	NORTH CAMPUS FACILITIES SERVICES BUILDING	Administration & Support	48,599	1/1/1996	1/1/1996	\$ 1,900,000	\$ 2,426,680	\$ -
1002514	NORTH CAMPUS GROUND SVC FACILITY	Administration & Support	28,246	1/1/1990	1/1/1990	\$ 2,550,071	\$ 3,114,212	\$ 442,865
1005140	NORTH CAMPUS GROUND SVC FACILITY ANNEX	Administration & Support	112	11/20/2009	1/1/2003	tbd	tbd	
1005297	NORTH CAMPUS GROUNDS STORAGE SHED	Administration & Support	256	12/4/2009	12/4/2009	tbd	tbd	
1000449	NORTH CAMPUS HOUSING SERVICE BLD	Administration & Support	31,837	1/1/1978	1/1/1978	\$ 535,140	\$ 1,251,597	\$ 1,344,453
1002517	NORTH CAMPUS MICROWAVE TOWER	Administration & Support	279	1/1/1991	1/1/1991	\$ 8,825	\$ 13,726	
1000427	NORTH CAMPUS RECREATION BUILDING	Recreational Sports Building	66,876	1/1/1976	1/1/1976	\$ 2,786,864	\$ 8,668,820	\$ 5,129,131
1005253	NORTH CAMPUS RESEARCH COMPLEX BUILDING 10	Teach, Research, Support	69,752	7/1/2009	1/1/1959	tbd	tbd	\$ 8,601,744
1005276	NORTH CAMPUS RESEARCH COMPLEX BUILDING 100	Teach, Research, Support	10,492	7/1/2009	1/1/1964	tbd	tbd	\$ 1,430,469
1005254	NORTH CAMPUS RESEARCH COMPLEX BUILDING 14	Teach, Research, Support	49,808	7/1/2009	1/1/1987	tbd	tbd	\$ 6,069,814
1005255	NORTH CAMPUS RESEARCH COMPLEX BUILDING 15	Teach, Research, Support	4,623	7/1/2009	1/1/1959	tbd	tbd	\$ 402,383
1005256	NORTH CAMPUS RESEARCH COMPLEX BUILDING 16	Teach, Research, Support	121,870	7/1/2009	1/1/1991	tbd	tbd	\$ 5,440,612
1005258	NORTH CAMPUS RESEARCH COMPLEX BUILDING 18	Teach, Research, Support	92,899	7/1/2009	1/1/2000	tbd	tbd	\$ 2,602,482
1005259	NORTH CAMPUS RESEARCH COMPLEX BUILDING 20	Teach, Research, Support	179,497	7/1/2009	1/1/1959	tbd	tbd	\$ 29,618,503
1005277	NORTH CAMPUS RESEARCH COMPLEX BUILDING 200	Teach, Research, Support	26,389	7/1/2009	1/1/1964	tbd	tbd	\$ 2,111,845
1005260	NORTH CAMPUS RESEARCH COMPLEX BUILDING 22	Teach, Research, Support	21,289	7/1/2009	1/1/1999	tbd	tbd	\$ 2,492,360
1005261	NORTH CAMPUS RESEARCH COMPLEX BUILDING 23	Teach, Research, Support	10,508	7/1/2009	1/1/2002	tbd	tbd	\$ 101,371

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				Year	r		Costs	
								Deferred
D 1 "	D 111	D 1111 TF			G	0 1	D 1	Maintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	Backlog
1005262	NORTH CAMPUS RESEARCH COMPLEX BUILDING 25	Teach, Research, Support	105,221	7/1/2009	1/1/1984	tbd	tbd	\$ 32,009,845
1005263	NORTH CAMPUS RESEARCH COMPLEX BUILDING 26	Teach, Research, Support	194,091	7/1/2009	1/1/2000	tbd	tbd	\$ 5,501,358
1005264	NORTH CAMPUS RESEARCH COMPLEX BUILDING 28	Teach, Research, Support	134,720	7/1/2009	1/1/1992	tbd	tbd	\$ 22,578,800
1005265	NORTH CAMPUS RESEARCH COMPLEX BUILDING 30	Teach, Research, Support	32,358	7/1/2009	1/1/1965	tbd	tbd	\$ 7,384,894
1005278	NORTH CAMPUS RESEARCH COMPLEX BUILDING 300	Teach, Research, Support	39,513	7/1/2009	1/1/1964	tbd	tbd	\$ 4,485,436
1005266	NORTH CAMPUS RESEARCH COMPLEX BUILDING 35	Teach, Research, Support	95,808	7/1/2009	1/1/1985	tbd	tbd	\$ 44,214,779
1005267	NORTH CAMPUS RESEARCH COMPLEX BUILDING 36	Teach, Research, Support	116,163	7/1/2009	1/1/2006	tbd	tbd	\$ 3,536,236
1005268	NORTH CAMPUS RESEARCH COMPLEX BUILDING 40	Teach, Research, Support	4,370	7/1/2009	1/1/1959	tbd	tbd	\$ 1,317,896
1005279	NORTH CAMPUS RESEARCH COMPLEX BUILDING 400	Teach, Research, Support	27,571	7/1/2009	1/1/1982	tbd	tbd	\$ 2,257,124
1005269	NORTH CAMPUS RESEARCH COMPLEX BUILDING 50	Teach, Research, Support	25,713	7/1/2009	1/1/1977	tbd	tbd	\$ 5,323,770
1005280	NORTH CAMPUS RESEARCH COMPLEX BUILDING 500	Administration & Support	14,775	1/1/2009	1/1/1998	tbd	tbd	
1005281	NORTH CAMPUS RESEARCH COMPLEX BUILDING 520	Teach, Research, Support	199,850	7/1/2009	1/1/1998	tbd	tbd	\$ 7,364,213
1005282	NORTH CAMPUS RESEARCH COMPLEX BUILDING 550	Teach, Research, Support	236,634	7/1/2009	1/1/1998	tbd	tbd	\$ 3,487,788
1005270	NORTH CAMPUS RESEARCH COMPLEX BUILDING 60	Teach, Research, Support	25,149	7/1/2009	1/1/1983	tbd	tbd	\$ 3,793,993
1005271	NORTH CAMPUS RESEARCH COMPLEX BUILDING 70	Teach, Research, Support	773	7/1/2009	1/1/1959	tbd	tbd	\$ 42,180
1005272	NORTH CAMPUS RESEARCH COMPLEX BUILDING 73	Administration & Support	231,655	1/1/2009	1/1/1991	tbd	tbd	\$ 474,930
1005273	NORTH CAMPUS RESEARCH COMPLEX BUILDING 80	Administration & Support	52,404	1/1/2009	1/1/1959	tbd	tbd	\$ 12,988,179
1005283	NORTH CAMPUS RESEARCH COMPLEX BUILDING 800	Administration & Support	20,250	1/1/2009	1/1/2001	tbd	tbd	\$ 1,109,403
1005274	NORTH CAMPUS RESEARCH COMPLEX BUILDING 85	Administration & Support	5,132	1/1/2009	1/1/2005	tbd	tbd	\$ 285,840
1005335	NORTH CAMPUS RESEARCH COMPLEX BUILDING 86	Switching Stations	1,040	7/1/2009	2/20/2006	tbd	tbd	
1005275	NORTH CAMPUS RESEARCH COMPLEX BUILDING 90	Teach, Research, Support	35,000	7/1/2009	1/1/1999	tbd	tbd	\$ 1,806,311
1000418	NORTH CAMPUS SERVICE BLDG #1	Administration & Support	23,191	1/1/1965	1/1/1965	\$ 664,510	\$ 3,550,520	\$ 636,979
1000430	NORTH CAMPUS STORAGE BUILDING	Administration & Support	45,750	1/1/1967	1/1/1967	\$ 364,210	\$ 1,909,317	\$ 1,071,517
1005334	NORTH CAMPUS SUPPORT FACILITY	Administration & Support	-			tbd	tbd	
1000408	NORTH CAMPUS SWITCH STATION	Switching Stations	10,161	1/1/1957	1/1/1957	\$ 294,221	\$ 2,651,668	\$ 75,512
1000196	NORTH HALL	Teach, Research, Support	48,121	1/1/1900	1/1/1900	\$ 80,307	\$ 6,943,155	\$ 7,630,875
1005177	NORTH QUADRANGLE RESIDENTIAL AND ACADEMIC COMPLEX	Resident Hall	388,356	7/1/2010	7/1/2009	tbd	tbd	\$ 0
1000600	NORTHWOOD COMMUNITY CENTER	Recreational Sports Building	13,784	1/1/1991	1/1/1991	\$ 2,060,000	\$ 3,203,918	\$ 1,077,323
1000451	NORTHWOOD I APTS 451	Residence	11,744	1/1/1955	1/1/1955			\$ 16,999,414
1000452	NORTHWOOD I APTS 452	Residence	5,312	1/1/1955	1/1/1955			included above
1000453	NORTHWOOD I APTS 453	Residence	14,412	1/1/1955	1/1/1955	\$ 212,692	\$ 1,976,040	included above
1000454	NORTHWOOD I APTS 454	Residence	14,412	1/1/1955	1/1/1955	\$ 212,692	\$ 1,976,040	included above
1000455	NORTHWOOD I APTS 455	Residence	5,312	1/1/1955	1/1/1955	\$ 78,443	\$ 728,778	included above
1000456	NORTHWOOD I APTS 456	Residence	11,744	1/1/1955	1/1/1955	\$ 173,374	\$ 1,610,745	included above
1000450	NORTHWOOD I SVC BUILDING 450	Residence	3,168	1/1/1955	1/1/1955	\$ 46,636	\$ 433,278	included above
1000462	NORTHWOOD II APTS 462	Residence	4,246	1/1/1957	1/1/1957	\$ 73,435	\$ 630,064	\$ 37,310,560
1000464	NORTHWOOD II APTS 464	Residence	5,645	1/1/1957	1/1/1957			included above
1000465	NORTHWOOD II APTS 465	Residence	5,645	1/1/1957	1/1/1957			included above
1000466	NORTHWOOD II APTS 466	Residence	4,246	1/1/1957	1/1/1957	•		included above
1000467	NORTHWOOD II APTS 467	Residence	4,246	1/1/1957	1/1/1957			included above
1000468	NORTHWOOD II APTS 468	Residence	4,246	1/1/1957	1/1/1957	•		included above
- 0 0 0 1 0 0	I	1	1,210	2/1/2/07	1, 1, 1, 5, 1	7 75,155	- 050,001	

				Ye	ear		Costs	
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	Deferred Maintenance Backlog
1000469	NORTHWOOD II APTS 469	Residence	12,405	1/1/1957	1/1/1957	ŭ	\$ 1,838,144	included above
1000470	NORTHWOOD II APTS 470	Residence	5,645	1/1/1957	1/1/1957		\$ 838,260	included above
1000471	NORTHWOOD II APTS 471	Residence	5,645	1/1/1957	1/1/1957		\$ 838,260	included above
1000472	NORTHWOOD II APTS 472	Residence	5,645	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000473	NORTHWOOD II APTS 473	Residence	12,405	1/1/1957	1/1/1957		\$ 1,838,144	included above
1000474	NORTHWOOD II APTS 474	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000475	NORTHWOOD II APTS 475	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000476	NORTHWOOD II APTS 476	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000477	NORTHWOOD II APTS 477	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000478	NORTHWOOD II APTS 478	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000479	NORTHWOOD II APTS 479	Residence	5,645	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000480	NORTHWOOD II APTS 480	Residence	5,645	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000481	NORTHWOOD II APTS 481	Residence	5,645	1/1/1957	1/1/1957	\$ 97,700	\$ 838,260	included above
1000482	NORTHWOOD II APTS 482	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000483	NORTHWOOD II APTS 483	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000484	NORTHWOOD II APTS 484	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000485	NORTHWOOD II APTS 485	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000486	NORTHWOOD II APTS 486	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000487	NORTHWOOD II APTS 487	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000488	NORTHWOOD II APTS 488	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000489	NORTHWOOD II APTS 489	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000490	NORTHWOOD II APTS 490	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000491	NORTHWOOD II APTS 491	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000492	NORTHWOOD II APTS 492	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000493	NORTHWOOD II APTS 493	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000494	NORTHWOOD II APTS 494	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000495	NORTHWOOD II APTS 495	Residence	3,738	1/1/1957	1/1/1957	-	\$ 553,361	included above
1000496	NORTHWOOD II APTS 496	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000497	NORTHWOOD II APTS 497	Residence	3,738	1/1/1957	1/1/1957	\$ 64,495	\$ 553,361	included above
1000457	NORTHWOOD II SVC BUILDING 457	Residence	5,400	1/1/1957	1/1/1957	\$ 93,230	\$ 799,908	included above
1000458	NORTHWOOD II SVC BUILDING 458	Residence	2,760	1/1/1957	1/1/1957	\$ 50,127	\$ 430,087	included above
1000459	NORTHWOOD II SVC BUILDING 459	Residence	2,879	1/1/1957	1/1/1957	\$ 50,127	\$ 430,087	included above
1000460	NORTHWOOD II SVC BUILDING 460	Residence	5,270	1/1/1957	1/1/1957	\$ 90,995	\$ 780,732	included above
1000461	NORTHWOOD II SVC BUILDING 461	Residence	2,879	1/1/1957	1/1/1957	\$ 50,127	\$ 430,087	included above
1000501	NORTHWOOD III APTS 501	Residence	27,371	1/1/1958	1/1/1958		\$ 3,928,670	\$ 33,410,884
1000502	NORTHWOOD III APTS 502	Residence	17,585	1/1/1958	1/1/1958		\$ 2,524,006	included above
1000503	NORTHWOOD III APTS 503	Residence	17,585	1/1/1958	1/1/1958		\$ 2,524,006	included above
1000504	NORTHWOOD III APTS 504	Residence	25,068	1/1/1958	1/1/1958	·	\$ 3,597,013	included above
1000505	NORTHWOOD III APTS 505	Residence	17,585	1/1/1958	1/1/1958		\$ 2,524,006	included above
1000506	NORTHWOOD III APTS 506	Residence	17,585	1/1/1958	1/1/1958	·	\$ 2,524,006	included above
1000507	NORTHWOOD III APTS 507	Residence	17,585	1/1/1958	1/1/1958	\$ 301,785	\$ 2,524,006	included above

Bdg # Building 1000508 NORTHWOOD II 1000499 NORTHWOOD II	I SVC BUILDING 499	Building Type Residence	Gross Square Feet	Yea			Costs	Deferred
1000508 NORTHWOOD II	I SVC BUILDING 499		Gross Square Feet					
1000508 NORTHWOOD II	I SVC BUILDING 499		Gross Square Feet					Maintenance
1000508 NORTHWOOD II	I SVC BUILDING 499			Acq	Const	Original	Replacement	Backlog
	I SVC BUILDING 499		17,585	1/1/1958	1/1/1958		\$ 2,524,006	included above
		Residence	2,471	1/1/1958	1/1/1958		\$ 368,846	+
1000500 NORTHWOOD II	ISVC BUILDING 500	Residence	2,471	1/1/1958	1/1/1958		\$ 368,846	+
1000601 NORTHWOOD I	/ APTS 601	Residence	8,029	1/1/1969	1/1/1969		\$ 437,936	\$ 57,812,439
1000602 NORTHWOOD I	/ APTS 602	Residence	4,061	1/1/1969	1/1/1969	\$ 40,716	\$ 221,849	
1000603 NORTHWOOD I	/ APTS 603	Residence	3,066	1/1/1969	1/1/1969	\$ 30,669	\$ 167,107	included above
1000604 NORTHWOOD I	/ APTS 604	Residence	4,899	1/1/1969	1/1/1969	\$ 49,176	\$ 267,948	included above
1000605 NORTHWOOD I	/ APTS 605	Residence	10,708	1/1/1969	1/1/1969	\$ 107,342	\$ 584,875	included above
1000606 NORTHWOOD I	/ APTS 606	Residence	3,117	1/1/1969	1/1/1969	\$ 31,198	\$ 169,988	included above
1000607 NORTHWOOD I	/ APTS 607	Residence	6,763	1/1/1969	1/1/1969	\$ 67,684	\$ 368,788	included above
1000608 NORTHWOOD I	/ APTS 608	Residence	5,425	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000609 NORTHWOOD I	/ APTS 609	Residence	5,425	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000610 NORTHWOOD I	/ APTS 610	Residence	4,123	1/1/1969	1/1/1969	\$ 41,245	\$ 224,730	included above
1000611 NORTHWOOD I	/ APTS 611	Residence	7,181	1/1/1969	1/1/1969	\$ 71,914	\$ 391,837	included above
1000612 NORTHWOOD I	/ APTS 612	Residence	6,726	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000613 NORTHWOOD I	/ APTS 613	Residence	4,442	1/1/1969	1/1/1969	\$ 44,417	\$ 242,017	included above
1000614 NORTHWOOD I	/ APTS 614	Residence	5,399	1/1/1969	1/1/1969	\$ 53,935	\$ 293,878	included above
1000615 NORTHWOOD I	/ APTS 615	Residence	3,159	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above
1000616 NORTHWOOD I	/ APTS 616	Residence	10,707	1/1/1969	1/1/1969	\$ 107,342	\$ 584,875	included above
1000617 NORTHWOOD I	/ APTS 617	Residence	7,967	1/1/1969	1/1/1969	\$ 79,846	\$ 435,055	included above
1000618 NORTHWOOD I	/ APTS 618	Residence	7,082	1/1/1969	1/1/1969	\$ 70,856	\$ 386,075	included above
1000619 NORTHWOOD I	/ APTS 619	Residence	6,727	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000620 NORTHWOOD I	/ APTS 620	Residence	6,727	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000621 NORTHWOOD I	/ APTS 621	Residence	3,117	1/1/1969	1/1/1969	\$ 31,198	\$ 169,988	included above
1000622 NORTHWOOD I	/ APTS 622	Residence	5,876	1/1/1969	1/1/1969	\$ 58,694	\$ 319,808	included above
1000623 NORTHWOOD I	/ APTS 623	Residence	8,065	1/1/1969	1/1/1969	\$ 80,903	\$ 440,817	included above
1000624 NORTHWOOD I		Residence	6,727	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000625 NORTHWOOD I	/ APTS 625	Residence	4,061	1/1/1969	1/1/1969	\$ 40,716	\$ 221,849	included above
1000626 NORTHWOOD I	/ APTS 626	Residence	5,741	1/1/1969	1/1/1969	\$ 57,637	\$ 314,046	included above
1000627 NORTHWOOD I	/ APTS 627	Residence	3,117	1/1/1969	1/1/1969	\$ 31,198	\$ 169,988	included above
1000628 NORTHWOOD I		Residence	5,425	1/1/1969	1/1/1969	•		
1000629 NORTHWOOD I		Residence	5,425	1/1/1969	1/1/1969	•		included above
1000630 NORTHWOOD I	/ APTS 630	Residence	11,534	1/1/1969	1/1/1969	•		included above
1000631 NORTHWOOD I		Residence	4,442	1/1/1969	1/1/1969			included above
1000632 NORTHWOOD I		Residence	2,821	1/1/1969	1/1/1969			included above
1000633 NORTHWOOD I		Residence	6,727	1/1/1969	1/1/1969			included above
1000634 NORTHWOOD I		Residence	4,123	1/1/1969	1/1/1969	•	·	+
1000635 NORTHWOOD I	/ APTS 635	Residence	4,123	1/1/1969	1/1/1969	•		+
1000636 NORTHWOOD I	/ APTS 636	Residence	3,159	1/1/1969	1/1/1969			included above
1000637 NORTHWOOD I		Residence	7,034	1/1/1969	1/1/1969	·		+
1000638 NORTHWOOD I	/ APTS 638	Residence	5,775	1/1/1969	1/1/1969	\$ 57,637	\$ 314,046	included above

				Year				
					_		Costs	Deferred
								Maintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	Backlog
1000639	NORTHWOOD IV APTS 639	Residence	8,029	1/1/1969	1/1/1969			included above
1000640	NORTHWOOD IV APTS 640	Residence	5,425	1/1/1969	1/1/1969		\$ 296,759	included above
1000641	NORTHWOOD IV APTS 641	Residence	4,478	1/1/1969	1/1/1969		·	included above
1000642	NORTHWOOD IV APTS 642	Residence	4,061	1/1/1969	1/1/1969			included above
1000643	NORTHWOOD IV APTS 643	Residence	5,363	1/1/1969	1/1/1969		\$ 293,878	included above
1000644	NORTHWOOD IV APTS 644	Residence	8,348	1/1/1969	1/1/1969		·	included above
1000645	NORTHWOOD IV APTS 645	Residence	6,279	1/1/1969	1/1/1969		\$ 342,858	included above
1000646	NORTHWOOD IV APTS 646	Residence	5,425	1/1/1969	1/1/1969			included above
1000647	NORTHWOOD IV APTS 647	Residence	4,123	1/1/1969	1/1/1969			included above
1000648	NORTHWOOD IV APTS 648	Residence	3,159	1/1/1969	1/1/1969			included above
1000649	NORTHWOOD IV APTS 649	Residence	4,442	1/1/1969	1/1/1969	\$ 44,417	\$ 242,017	included above
1000650	NORTHWOOD IV APTS 650	Residence	4,123	1/1/1969	1/1/1969		\$ 224,730	included above
1000651	NORTHWOOD IV APTS 651	Residence	5,425	1/1/1969	1/1/1969			included above
1000652	NORTHWOOD IV APTS 652	Residence	6,701	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000653	NORTHWOOD IV APTS 653	Residence	4,442	1/1/1969	1/1/1969	\$ 44,417	\$ 242,017	included above
1000654	NORTHWOOD IV APTS 654	Residence	5,425	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000655	NORTHWOOD IV APTS 655	Residence	11,099	1/1/1969	1/1/1969	\$ 111,044	\$ 605,043	included above
1000656	NORTHWOOD IV APTS 656	Residence	10,080	1/1/1969	1/1/1969	\$ 100,997	\$ 550,301	included above
1000657	NORTHWOOD IV APTS 657	Residence	6,727	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000658	NORTHWOOD IV APTS 658	Residence	8,480	1/1/1969	1/1/1969	\$ 85,133	\$ 463,866	included above
1000659	NORTHWOOD IV APTS 659	Residence	9,269	1/1/1969	1/1/1969	\$ 93,065	\$ 507,083	included above
1000660	NORTHWOOD IV APTS 660	Residence	8,348	1/1/1969	1/1/1969	\$ 83,547	\$ 455,223	included above
1000661	NORTHWOOD IV APTS 661	Residence	5,744	1/1/1969	1/1/1969	\$ 57,637	\$ 314,046	included above
1000662	NORTHWOOD IV APTS 662	Residence	3,159	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above
1000663	NORTHWOOD IV APTS 663	Residence	9,650	1/1/1969	1/1/1969	\$ 96,766	\$ 527,252	included above
1000664	NORTHWOOD IV APTS 664	Residence	8,348	1/1/1969	1/1/1969	\$ 83,547	\$ 455,223	included above
1000665	NORTHWOOD IV APTS 665	Residence	3,159	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above
1000666	NORTHWOOD IV APTS 666	Residence	4,442	1/1/1969	1/1/1969	\$ 44,417	\$ 242,017	included above
1000667	NORTHWOOD IV APTS 667	Residence	6,665	1/1/1969	1/1/1969	\$ 66,626	\$ 363,026	included above
1000668	NORTHWOOD IV APTS 668	Residence	9,331	1/1/1969	1/1/1969	\$ 93,594	\$ 509,965	included above
1000669	NORTHWOOD IV APTS 669	Residence	8,348	1/1/1969	1/1/1969	\$ 83,547	\$ 455,223	included above
1000670	NORTHWOOD IV APTS 670	Residence	7,095	1/1/1969	1/1/1969	\$ 70,856	\$ 386,075	included above
1000671	NORTHWOOD IV APTS 671	Residence	10,858	1/1/1969	1/1/1969	\$ 108,928	\$ 593,518	included above
1000672	NORTHWOOD IV APTS 672	Residence	5,425	1/1/1969	1/1/1969	\$ 54,464	\$ 296,759	included above
1000673	NORTHWOOD IV APTS 673	Residence	9,779	1/1/1969	1/1/1969	\$ 97,824	\$ 533,014	included above
1000674	NORTHWOOD IV APTS 674	Residence	8,029	1/1/1969	1/1/1969	\$ 80,374	\$ 437,936	included above
1000675	NORTHWOOD IV APTS 675	Residence	10,679	1/1/1969	1/1/1969	\$ 106,813	\$ 581,994	included above
1000676	NORTHWOOD IV APTS 676	Residence	6,727	1/1/1969	1/1/1969	\$ 67,155	\$ 365,907	included above
1000677	NORTHWOOD IV APTS 677	Residence	8,104	1/1/1969	1/1/1969	\$ 80,903	\$ 440,817	included above
1000678	NORTHWOOD IV APTS 678	Residence	7,046	1/1/1969	1/1/1969	•	\$ 383,194	included above
1000679	NORTHWOOD IV APTS 679	Residence	3,159	1/1/1969	1/1/1969	\$ 31,727	\$ 172,869	included above

		I		Ye	ear	Costs		
1							2002	Deferred
1								Maintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	Backlog
1000680	NORTHWOOD IV APTS 680	Residence	7,967	1/1/1969	1/1/1969			included above
1000681	NORTHWOOD IV APTS 681	Residence	8,348	1/1/1969	1/1/1969		\$ 455,223	included above
1000682	NORTHWOOD IV APTS 682	Residence	11,045	1/1/1969	1/1/1969	·	·	included above
1000683	NORTHWOOD IV APTS 683	Residence	6,727	1/1/1969	1/1/1969		\$ 365,907	included above
1000684	NORTHWOOD IV APTS 684	Residence	1,479	1/1/1996	1/1/1996	tbd	tbd	included above
1002701	NORTHWOOD V APTS 2701	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	\$ 59,559,032
1002702	NORTHWOOD V APTS 2702	Residence	10,695	1/1/1972	1/1/1972	·		included above
1002703	NORTHWOOD V APTS 2703	Residence	9,393	1/1/1972	1/1/1972	· ·		included above
1002704	NORTHWOOD V APTS 2704	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002705	NORTHWOOD V APTS 2705	Residence	9,393	1/1/1972	1/1/1972	· ·		included above
1002706	NORTHWOOD V APTS 2706	Residence	9,393	1/1/1972	1/1/1972	·	\$ 419,447	included above
1002707	NORTHWOOD V APTS 2707	Residence	5,603	1/1/1972	1/1/1972		\$ 250,224	included above
1002708	NORTHWOOD V APTS 2708	Residence	8,091	1/1/1972	1/1/1972			included above
1002709	NORTHWOOD V APTS 2709	Residence	6,218	1/1/1972	1/1/1972	•		included above
1002710	NORTHWOOD V APTS 2710	Residence	9,393	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002711	NORTHWOOD V APTS 2711	Residence	8,091	1/1/1972	1/1/1972			included above
1002712	NORTHWOOD V APTS 2712	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002713	NORTHWOOD V APTS 2713	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002714	NORTHWOOD V APTS 2714	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002715	NORTHWOOD V APTS 2715	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002716	NORTHWOOD V APTS 2716	Residence	8,091	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002717	NORTHWOOD V APTS 2717	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002718	NORTHWOOD V APTS 2718	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002719	NORTHWOOD V APTS 2719	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002720	NORTHWOOD V APTS 2720	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002721	NORTHWOOD V APTS 2721	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002722	NORTHWOOD V APTS 2722	Residence	9,393	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002723	NORTHWOOD V APTS 2723	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002724	NORTHWOOD V APTS 2724	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002725	NORTHWOOD V APTS 2725	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002726	NORTHWOOD V APTS 2726	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002727	NORTHWOOD V APTS 2727	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002728	NORTHWOOD V APTS 2728	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002729	NORTHWOOD V APTS 2729	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002730	NORTHWOOD V APTS 2730	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002731	NORTHWOOD V APTS 2731	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002732	NORTHWOOD V APTS 2732	Residence	8,091	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002733	NORTHWOOD V APTS 2733	Residence	9,393	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002734	NORTHWOOD V APTS 2734	Residence	8,091	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002735	NORTHWOOD V APTS 2735	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above

				Ye	ar	Costs		
					<u></u>		2 00.00	Deferred
								Maintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	Backlog
1002737	NORTHWOOD V APTS 2737	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002738	NORTHWOOD V APTS 2738	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002739	NORTHWOOD V APTS 2739	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002740	NORTHWOOD V APTS 2740	Residence	8,091	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002741	NORTHWOOD V APTS 2741	Residence	8,091	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002742	NORTHWOOD V APTS 2742	Residence	9,393	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002743	NORTHWOOD V APTS 2743	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002744	NORTHWOOD V APTS 2744	Residence	8,091	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002745	NORTHWOOD V APTS 2745	Residence	9,393	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002746	NORTHWOOD V APTS 2746	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002747	NORTHWOOD V APTS 2747	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002748	NORTHWOOD V APTS 2748	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002749	NORTHWOOD V APTS 2749	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002750	NORTHWOOD V APTS 2750	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002751	NORTHWOOD V APTS 2751	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002752	NORTHWOOD V APTS 2752	Residence	8,091	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002753	NORTHWOOD V APTS 2753	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002754	NORTHWOOD V APTS 2754	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002755	NORTHWOOD V APTS 2755	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002756	NORTHWOOD V APTS 2756	Residence	9,393	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002757	NORTHWOOD V APTS 2757	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002758	NORTHWOOD V APTS 2758	Residence	9,393	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002759	NORTHWOOD V APTS 2759	Residence	9,393	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002760	NORTHWOOD V APTS 2760	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002761	NORTHWOOD V APTS 2761	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002762	NORTHWOOD V APTS 2762	Residence	9,393	1/1/1972	1/1/1972	\$ 100,551	\$ 419,447	included above
1002763	NORTHWOOD V APTS 2763	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002764	NORTHWOOD V APTS 2764	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002765	NORTHWOOD V APTS 2765	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002766	NORTHWOOD V APTS 2766	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002767	NORTHWOOD V APTS 2767	Residence	5,603	1/1/1972	1/1/1972	\$ 59,984	\$ 250,224	included above
1002768	NORTHWOOD V APTS 2768	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002769	NORTHWOOD V APTS 2769	Residence	6,789	1/1/1972	1/1/1972	\$ 72,352	\$ 301,817	included above
1002770	NORTHWOOD V APTS 2770	Residence	8,091	1/1/1972	1/1/1972	\$ 86,575	\$ 361,148	included above
1002771	NORTHWOOD V APTS 2771	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002772	NORTHWOOD V APTS 2772	Residence	9,279	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above
1002773	NORTHWOOD V APTS 2773	Residence	9,279	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above
1002774	NORTHWOOD V APTS 2774	Residence	9,279	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above
1002775	NORTHWOOD V APTS 2775	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above
1002776	NORTHWOOD V APTS 2776	Residence	9,279	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above
1002777	NORTHWOOD V APTS 2777	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above

				Year		Costs			
								Deferred	
								Maintenance	
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement	Backlog	
1002778	NORTHWOOD V APTS 2778	Residence	6,218	1/1/1972	1/1/1972	\$ 66,168	\$ 276,021	included above	
1002779	NORTHWOOD V APTS 2779	Residence	9,279	1/1/1972	1/1/1972	\$ 99,314	\$ 414,288	included above	
1000042	OH ADELIA CHEEVER RESIDENCE	Residence	9,137	1/1/1964	1/1/1964	\$ 197,685	\$ 1,406,981	\$ 28,092,405	
1000041	OH ARTHUR AND HAZEL VANDENBERG HALL	Residence	20,641	1/1/1964	1/1/1964	\$ 446,188	\$ 3,175,655	included above	
1000043	OH GEDDES RESIDENCE	Residence	11,367	1/1/1964	1/1/1964	\$ 350,661	\$ 2,389,430	included above	
1000044	OH JULIA ESTHER EMANUEL RESIDENCE	Residence	9,137	1/1/1964	1/1/1964	\$ 197,685	\$ 1,406,981	included above	
1000046	OH LAUREL HARPER SEELEY HALL	Residence	36,632	1/1/1964	1/1/1964	\$ 792,009	\$ 5,636,968	included above	
1000040	OH MARY ALICE AND LILLIAN GODDARD HALL	Residence	20,641	1/1/1964	1/1/1964	\$ 446,188	\$ 3,175,655	included above	
1000045	OH PAMELA NOBLE RESIDENCE	Residence	9,137	1/1/1964	1/1/1964	\$ 197,685	\$ 1,406,981	included above	
1000047	OH PLANT SERVICE	Administration & Support	3,316	1/1/1964	1/1/1964	\$ 65,810	\$ 474,492	included above	
1000704	OOSTERBAAN BENNIE FIELD HOUSE	Intercollegiate Athletics Bldg	78,402	1/1/1981	1/1/1981	\$ 1,780,716	\$ 3,775,666	\$ 660,041	
1005047	PALMER COMMONS	Teach, Research, Support	106,472	4/1/2005	4/1/2005	\$ 33,000,000	\$ 33,990,000	\$ 108,969	
1000263	PALMER DRIVE PARKING STRUCTURE	Parking Structure	389,120	1/1/2004	1/1/2004	\$ 27,000,000	\$ 29,478,600	\$ 4,803	
1000890	PERRY BUILDING	Teach, Research, Support	123,632	1/1/1965	1/1/1902	\$ 15,126,021	\$ 39,082,449	\$ -	
1000807	PHYSICAL PROPERTIES BUILDING	Administration & Support	7,183	1/1/1956	1/1/1920	\$ 72,496	\$ 1,398,580	\$ 452,422	
1000442	PIERPONT WILBUR K COMMONS	Recreational Sports Building	90,412	1/1/1965	1/1/1965	\$ 6,369,128	\$ 18,543,669	\$ 6,304,522	
1000261	PLANT SERVICE BUILDING	Administration & Support	15,178	1/1/1973	1/1/1973	\$ 195,420	\$ 754,426	\$ 778,732	
1008050	PLANT STORAGE BUILDING #1	Administration & Support	3,086	1/1/1987	1/1/1987	\$ 10,200	\$ 17,335		
1008051	PLANT STORAGE BUILDING #2	Administration & Support	2,576	1/1/1987	1/1/1987	\$ 10,200	\$ 17,335		
1008052	PLANT STORAGE BUILDING #3	Administration & Support	2,576	1/1/1987	1/1/1987	\$ 10,200	\$ 17,335		
1000186	POUND MADELON HOUSE	Teach, Research, Support	7,571	1/1/1951	1/1/1951	\$ 43,949	\$ 420,986	\$ 1,316,566	
1000187	POUND MADELON HOUSE GARAGE	Teach, Research, Support	527	1/1/1951	1/1/1951	\$ 3,055	\$ 29,266		
1000180	POWER CENTER FOR PERFORMING ARTS	Teach, Research, Support	73,087	1/1/1971	1/1/1971	\$ 5,703,625	\$ 21,086,775	\$ 3,774,769	
1000203	PRESIDENTS RESIDENCE	Administration & Support	13,781	1/1/1840	1/1/1840	\$ 65,882	\$ 3,769,919	\$ 905,273	
1000172	RACKHAM HORACE H SCHOOL OF GRADUATE STUDIES	Teach, Research, Support	166,057	1/1/1938	1/1/1938	\$ 1,655,771	\$ 47,547,788	\$ 1,712,838	
1000417	RADIATION SCIENCES LABORATORY 2	Teach, Research, Support	11,717	1/1/1962	1/1/1962	\$ 406,106	\$ 2,156,749	\$ 161,196	
1000416	RADIATION SCIENCES LABORATORY 1	Teach, Research, Support	7,708	1/1/1962	1/1/1962	\$ 254,411	\$ 1,340,324	\$ 301,915	
1000972	RADRICK FARMS BARN #1	Administration & Support	1,344	1/1/1962	1/1/1962	tbd	tbd		
1000955	RADRICK FARMS CARETAKERS HOUSE	Administration & Support	2,874	1/1/1962	1/1/1962	\$ 30,610	\$ 236,462		
1000958	RADRICK FARMS CHICKEN HOUSE	Administration & Support	200	1/1/1962	1/1/1962	tbd	tbd		
1000970	RADRICK FARMS COMFORT STATION	Administration & Support	240	1/1/1987	1/1/1987	\$ 94,945	\$ 161,359		
1005331	RADRICK FARMS COMFORT STATION #2	Administration & Support	-			tbd	tbd		
1000959	RADRICK FARMS CORNCRIB #1	Administration & Support	105	1/1/1962	1/1/1962	tbd	tbd		
1000918	RADRICK FARMS DRIVE RANGE SHELT	Administration & Support	128	1/1/1989	1/1/1989	\$ 18,012	\$ 29,127		
1000962	RADRICK FARMS FIRE BARN	Administration & Support	792	1/1/1962	1/1/1962	\$ 3,848	\$ 29,012		
1000960	RADRICK FARMS FOOD SERVICE BLDG	Administration & Support	408	1/1/1995	1/1/1995	tbd	tbd		
1000974	RADRICK FARMS GOLF CART BUILDING	Administration & Support	2,909	1/1/1976	1/1/1976	\$ 46,375	\$ 140,433		
1000963	RADRICK FARMS GOLF CLUBHOUSE	Administration & Support	10,715	1/1/1962	1/1/1939	\$ 205,000	\$ 5,677,824		
1000971	RADRICK FARMS GOLF STORAGE BLDG	Administration & Support	3,661	1/1/1966	1/1/1966	\$ 2,564	\$ 17,086		
1000950	RADRICK FARMS POOL HOUSE	Administration & Support	704	1/1/1962	1/1/1962	\$ 6,488	\$ 50,120		
1000954	RADRICK FARMS PUMP HOUSE	Administration & Support	168	1/1/1976	1/1/1976	\$ 19,181	\$ 58,084		

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Bdg #	Building	Building Type	Gross Square Feet	Aca	Const	Original	Replacement	Backlo	
1000953	RADRICK FARMS RECREATION FACILTY	Teach, Research, Support	2,459	Acq 1/1/1994	1/1/1994		\$ 367,423	Dackie	<u>Jg</u>
1000955	RADRICK FARMS SHED-GARAGE	Administration & Support	2,370	1/1/1994	1/1/1994	·	\$ 52,994		
1005048	RADRICK FARMS STORAGE RADRICK FARMS STORAGE	Administration & Support	4,055	7/1/2003	4/30/2003		\$ 2,348,164		
1003048	RADRICK FARMS STORAGE RADRICK FARMS TACKROOM-BARN	Administration & Support	2,855	1/1/1962	1/1/1962		\$ 2,348,104		
1000937	RANDALL HARRISON M LABORATORY	**	217,169	1/1/1902	1/1/1902		\$ 50,610,139	\$ 5.8	832,576
1000208	REVELLI WILLIAM D BAND REHEARSAL HALL	Teach, Research, Support Teach, Research, Support	15,620	1/1/1924	1/1/1924		\$ 3,174,299		045,557
1005188	ROSS SCHOOL OF BUSINESS BUILDING	**	291,883	1/1/2009	5/1/2006	, ,	\$ 148,732,000	\$ 2,0	043,337
1005188	ROSS STEPHEN M ACADEMIC CENTER	Teach, Research, Support Teach, Research, Support	45,356	1/6/2006	7/1/2004		\$ 11,250,860	Ф	
1003120	RUTHVEN ALEXANDER G MUSEUMS BLDG		183,694	1/1/1928	1/1/1928			\$ 10.2	225 000
1000193	SALT STORAGE BUILDING	Teach, Research, Support	2,385	1/1/1928			\$ 25,803,028 \$ 201,870		225,888
	SAMUEL AND JEAN FRANKEL CARDIOVASCULAR CENTER	Administration & Support			1/1/1984			Þ	64,134
1005109		Clinical Delivery System	444,952	4/1/2007	1/1/2007		\$ 161,574,214	¢ 1.1	194 025
1000705	SCHEMBECHLER GLENN E HALL	Intercollegiate Athletics Bldg	77,187	1/1/1971	1/1/1971		\$ 20,343,877		184,935 117,963
1000420	SCHOOL OF NURSING PLIE DING	Administration & Support	30,930	1/1/1971	1/1/1971		\$ 6,973,413	•	
1000333	SCHOOL OF SOCIAL WORK BUILDING	Teach, Research, Support	140,057	1/1/1977	1/1/1913		\$ 75,992,750		298,040 404,707
1000219	SCHOOL OF SOCIAL WORK BUILDING	Teach, Research, Support	143,469	9/1/1997	6/1/1995 1/1/1963	, ,	\$ 33,475,000	\$ 4,4	494,797
1000999	SEISMOGRAPH STATION	Teach, Research, Support	576	1/1/1963		. ,	\$ 49,209	¢ 5.1	114770
1000227	SHAPIRO HAROLD T AND VIVIAN B LIBRARY	Library Building	179,318	1/1/1957	1/1/1957		\$ 28,023,029	\$ 5,1	114,778
1000944	SHEEP RESEARCH FAC EAST BARN	Teach, Research, Support	2,016	1/1/1983	1/1/1983		\$ 22,764		
1000942	SHEEP RESEARCH FAC PORTAL VISTA	Teach, Research, Support	3,456	1/1/1993	1/1/1993	tbd	tbd		
1000943	SHEEP RESEARCH FAC SQUARE DOME	Teach, Research, Support	1,280	1/1/1985	1/1/1985	tbd	tbd		
1000947	SHEEP RESEARCH FACILITY HAY BARN	Teach, Research, Support	2,528	1/1/1976	1/1/1976	tbd	tbd		
1000973	SHEEP RESEARCH FACILITY OLD BARN	Teach, Research, Support	2,304	1/1/1962	1/1/1962	tbd	tbd		
1000946	SHEEP RESEARCH FACILITY P BARN 1	Teach, Research, Support	1,120	1/1/1976	1/1/1976	tbd	tbd		
1005077	SHEPHERD DONALD R WOMENS GYMNASTIC CENTER	Intercollegiate Athletics Bldg	22,837	4/1/2001	4/1/2001		\$ 3,757,440		
1000320	SIMPSON CIRCLE PARKING STRUCTURE	Parking Structure	464,866	1/1/1968	1/1/1968		\$ 18,081,332		67,880
1000212	SIMPSON THOMAS H MEMORIAL INST MEDICAL RESEARCH	Teach, Research, Support	17,769	1/1/1927	1/1/1927		\$ 5,438,472	\$ 7,5	510,611
1000750	SOFTBALL SERVICE BLDG	Intercollegiate Athletics Bldg	3,215	1/1/1997	1/1/2000		\$ 607,901		
1005235	SOUTH HALL	Teach, Research, Support	102,656	1/1/2012	1/1/2012	tbd	tbd		
1000063	SOUTH QUADRANGLE	Residence	387,989	1/1/1951	1/1/1951			· ·	241,802
1000441	SPACE RESEARCH LABORATORY	Teach, Research, Support	104,265	1/1/1965	1/1/1965		\$ 18,479,301	\$ 9,7	734,073
1000714	STADIUM PUMPING STATION	Intercollegiate Athletics Bldg	6,728	1/1/1927	1/1/1927	tbd	tbd		
1005224	STAMPS AUDITORIUM	Teach, Research, Support	13,488	10/24/2008	10/24/2008		\$ 4,860,586		
1000445	STEARNS FREDERICK BUILDING	Teach, Research, Support	18,261	1/1/1972	1/1/1955		\$ 1,905,494		184,022
1000064	STOCKWELL MADELON LOUISA HALL	Residence	141,961	1/1/1940	1/1/1940	·	\$ 24,593,153		066,580
1000215	STUDENT ACTIVITIES	Recreational Sports Building	119,626	1/1/1957	1/1/1957		\$ 25,550,697	· ·	450,230
1000216	TAPPAN HALL	Teach, Research, Support	36,885	1/1/1894	1/1/1894				878,587
1005037	TAUBMAN A ALFRED BIOMEDICAL SCIENCE RESEARCH BLDG	Teach, Research, Support	593,727	3/1/2006	3/1/2005		\$ 250,259,100		37,343
1000317	TAUBMAN A ALFRED HEALTH CARE CTR	Clinical Delivery System	489,498	1/1/1986	1/1/1986		\$ 81,790,527		146,597
1000209	TAUBMAN A ALFRED HEALTH SCIENCES LIBRARY	Library Building	137,394	1/1/1980	1/1/1980	\$ 6,779,403	\$ 15,990,579	\$ 3	312,739
1002515	TELECOMMUNICATIONS BLDG I	Administration & Support	311	1/1/1985	1/1/1985	tbd	tbd		
1005337	TEMPORARY LACROSSE TRAILER	Intercollegiate Athletics Bldg	2,000	8/4/2011		tbd	tbd		

				Yea	ar	Costs			
									Deferred
								N	Maintenance
Bdg #	Building	Building Type	Gross Square Feet	Acq	Const	Original	Replacement		Backlog
1000259	THAYER ST PARKING STRUCTURE	Parking Structure	165,422	1/1/1962	1/1/1962	\$ 856,295	\$ 6,561,96	2	
1000255	THOMPSON ST PARKING STRUCTURE	Parking Structure	365,996	1/1/1963	1/1/1963	\$ 999,536	\$ 7,412,56	1 \$	-
1000738	TISCH PRESTON ROBERT TENNIS BLD	Intercollegiate Athletics Bldg	88,863	1/1/1995	1/1/1997	\$ 4,500,000	\$ 5,886,45)	
1000313	TOWSLEY CENTER FOR CONTINUING MEDICAL EDUCATION	Teach, Research, Support	52,332	1/1/1969	1/1/1969	\$ 1,890,058	\$ 10,531,97	3 \$	6,071,192
1005240	TOWSLEY CHILDRENS HOUSE	Teach, Research, Support	25,429	6/1/2010	6/1/2010	tbd	tb	1 \$	0
1000808	TRANSPORTATION SERVICES BUILDING	Administration & Support	40,443	1/1/1969	1/1/1964		\$ 2,921,80	2 \$	1,789,900
1000886	TROTTER WILLIAM MONROE HOUSE	Teach, Research, Support	13,799	1/1/1972	1/1/1943	\$ 97,997	\$ 2,182,26	4 \$	1,316,147
1002519	UM TRANS RES FLAMMABLE STOR BLDG	Teach, Research, Support	192	1/1/1996	1/1/1996	tbd	tb	d	
1000444	U-M TRANSPORTATION RESEARCH INST	Teach, Research, Support	77,883	1/1/1969	1/1/1969	\$ 2,532,617	\$ 14,112,50	\$	6,067,134
1005338	UM TRANSPORTATION RESEARCH TESTING BUILDING	Teach, Research, Support	3,454	6/30/2012	6/30/2012	\$ 238,197	\$ 245,34	3	
1005051	UMH MODULAR OFFICE A	Clinical Delivery System	2,050	5/1/2000	5/1/2000	\$ 327,896	\$ 401,90	3	
1005046	UNDERGRADUATE SCIENCE BUILDING	Teach, Research, Support	141,517	11/1/2005	7/1/2003	\$ 59,800,000	\$ 61,594,00	\$	63,231
1000390	UNIV HOSPITALS CHILD CARE CENTER	Clinical Delivery System	14,850	1/1/1991	1/1/1991	\$ 2,195,231	\$ 3,414,24	3 \$	403,970
1000316	UNIVERSITY HOSPITALS	Clinical Delivery System	1,796,262	1/1/1986	1/1/1986	\$ 233,699,505	\$ 406,800,72	3 \$	160,651,146
1005012	UNIVERSITY HOSPITALS HELIPAD	Clinical Delivery System	5,413	3/1/2001	1/1/2000	\$ 7,027,000	\$ 8,540,61	5	
1005117	UPJOHN RACHEL BUILDING	Clinical Delivery System	117,097	9/29/2006	8/8/2005	\$ 36,136,030	\$ 37,220,11	1	
1000812	VARSITY DRIVE BUILDING	Administration & Support	158,536	1/1/1969	1/1/1969	\$ 3,986,220	\$ 16,119,12	1 \$	5,441,105
1000204	VAUGHAN HENRY FRIEZE PUBLIC HEALTH BUILDING	Teach, Research, Support	210,906	1/1/1942	1/1/1942	\$ 47,362,023	\$ 62,251,04	5 \$	703,661
1000065	VAUGHAN VICTOR C HOUSE	Teach, Research, Support	51,522	1/1/1939	1/1/1939	\$ 265,426	\$ 6,067,17	3 \$	4,058,460
1005059	WALGREEN CHARLES R JR DRAMA CENTER	Teach, Research, Support	84,149	1/24/2007	1/24/2007	\$ 29,439,618	\$ 30,322,80	7 \$	0
1008067	WALLACE MIKE AND MARY HOUSE	Teach, Research, Support	3,962	1/1/1992	1/1/1909	\$ 281,756	\$ 17,746,26	7	
1000731	WEIDENBACH JOHN P HALL	Intercollegiate Athletics Bldg	23,223	1/1/1955	1/1/1955	\$ 882,634	\$ 4,833,73	3 \$	456,172
1005101	WEILL JOAN & SANFORD HALL	Teach, Research, Support	97,989	10/1/2006	12/1/2005	\$ 34,380,535	\$ 35,411,95	1 \$	767,732
1005319	WEISFELD FAMILY GOLF CENTER	Intercollegiate Athletics Bldg	11,307	7/1/2011	7/1/2011	tbd	tb	d	
1000167	WEST HALL	Teach, Research, Support	163,159	1/1/1904	1/1/1904	\$ 556,714	\$ 32,728,56	1 \$	3,502,736
1000066	WEST QUADRANGLE	Residence	292,319	1/1/1937	1/1/1937	\$ 1,707,463	\$ 46,193,85	3 \$	61,135,409
1008090	WOLVERINE TOWER	Administration & Support	224,966	1/1/1992	1/1/1973	\$ 9,000,000	\$ 34,947,90) \$	20,324,103
1000309	WOMENS HOSPITALS	Clinical Delivery System	67,312	1/1/1950	1/1/1950	\$ 1,653,719	\$ 19,590,74	4 \$	3,440,922
1000135	WYLY SAM HALL	Teach, Research, Support	82,352	1/1/1996	1/1/1996	\$ 19,895,579	\$ 24,590,93	5 \$	0
1000709	YOST ICE ARENA	Intercollegiate Athletics Bldg	113,972	1/1/1924	1/1/1924	\$ 489,681	\$ 11,456,39	1 \$	1,867,532

Section V Implementation Plan

IMPLEMENTATION PLAN

Campus Planning

Over the last several years, the University of Michigan (U-M) has experienced growth in new academic, research and clinical initiatives. The U-M has maintained a strategic focus on an exemplary student experience, resulting in a rigorous building renewal program for the residential halls. The university has also executed a significant renovation and expansion program for athletic facilities to address the aging condition of heritage structures, and to provide new amenities needed to remain competitive with U-M peers. Thus, the trend in recent years has been on new growth, expansion of existing programs and facilities, and reinvestment in existing physical plant to meet the robust needs of the campus community.

With the addition of the North Campus Research Complex (NCRC), further described below, and significant growth pressures for additional clinical space, the University Planner's Office brought major campus units into a comprehensive integrated planning effort. Integrated planning ensures efficient resource allocation and identifies immediate, short-term and longer-term needs and planning opportunities guide future land use planning and capacity targets, functional use requirements, transportation and pedestrian circulation, open space and recreational resources, and utility support. The comprehensive nature of this process ensures alignment between all units.

The effort to enhance transportation between campuses continues. A transportation initiative recently completed is the Ann Arbor North-South Connector Study, which is a joint effort between the City of Ann Arbor, the Downtown Development Authority (DDA), the Ann Arbor Transportation Authority (AATA), and the University of Michigan. The goal of this study was to evaluate the feasibility of different types of transportation systems that could best meet the future needs of the university's community. The high capacity corridor as studied generally extends from the Ross Athletic Campus to Central Campus, the Medical Center Campus, North Campus and eventually East Medical Campus. This "signature corridor" study was completed in 2011 and concluded that enough trips exist today between campuses to support a new transit technology. A second phase of study for this corridor to determine the best alignment and type of technology is continuing with the city, DDA and AATA.

The university continues to focus on ways to improve the quality of campus life and the overall student experience, with emphasis on locations and adjacencies, as well as the selection and organization of programs, services, offices, housing facilities, retail and amenities. In addition, planning for improvements to address facility needs for Recreational Sports and the University Unions is under way.

An additional focus has been the next phase of the Residential Life Initiative (RLI). The university has the sixth largest campus housing system in the United States, with eighteen residence halls that house more than 9,500 students (one-third of the undergraduate student body) in 2.9 million square feet of space. In response to the aging condition of many of the

residence halls, the university implemented a Residential Life Initiative (RLI), a comprehensive capital plan to address significant immediate building renewal of existing residence halls as well as new facilities for housing and dining. This included renovation of several heritage facilities as well as the construction of the first residence hall in more than forty years, North Quadrangle.

The second phase of this renewal program (RLI II) is currently being implemented. Renovation of South Quadrangle is underway and will be completed late summer 2014, and renovation of West Quadrangle is planned for construction start in spring 2014 as part of continued commitment to the reinvestment in the university's heritage residence halls. In addition, construction of a new residence for graduate and professional students, the Munger Graduate Residences, began this fall. Made possible by a generous donation from philanthropist and alumnus Charles T. Munger, the purpose of this facility is to foster a community where graduate students from multiple disciplines can live and exchange ideas. This new residence hall will also provide meeting, gathering, and project spaces.

Infrastructure planning continues as a critical component of the university's master plan. As the university continues to refine short-term and long-term facility needs, requirements for additional power, chilled water, domestic water, storm water, etc., will evolve. The university also anticipates a continued transformation to a more technology rich campus environment, which will certainly influence ongoing infrastructure requirements. Parking and transit requirements, and safe/efficient pedestrian circulation remain high priority design components with each upcoming project.

Major projects expected to begin within the next five years are detailed below by campus. These projects are in various stages of planning, design or construction. Over the next five years, a wide variety of infrastructure needs or programmatic changes will emerge that will require the development of projects not on the lists. Although the university brings a consistent set of planning principles to all areas of campus, each campus has a unique set of dynamics. A brief description of the planning emphasis of each campus is provided below.

Central Campus and Medical Center Campus

The development of Central Campus remains consistent with U-M planning principles, with a significant number of projects planned over the next several years in response to growth pressures by academic and research initiatives. These projects also continue to support student life, collaboration and interdisciplinary learning, preservation of knowledge, international studies, and the university's commitment to nourish the arts and cultural activities on campus. One of the priority projects will be the renovation of and addition to the School of Dentistry's facilities in order to meet the needs of the school's academic, research and clinical programs. This is included as the FY15 Capital Outlay Request, further described in Section VI.

During the next several years, Medical Center planning will focus on redevelopment opportunities, as well as transportation and site improvements to support existing facilities. The longer term space needs to grow clinical care may play a significant role in revisiting master planning assumptions. The Health System's strategic facilities master planning effort currently

underway may have significant impact on planning for the future of the Medical Center Campus core area as well as the Wall Street district and the North Ingalls area.

Current and Planned Major Projects FY14 - FY19 -- Central and Medical Center Campuses

Current and Planned Major Projects FY14 – FY19 Central		and Medical Center Campuses	
PROJECT TYPE	GROSS SQUARE	ESTIMATED COST	
	FEET	(MILLIONS)	
addition and	56,700	\$29.0	
renovation			
renovation	106,700	\$60.0	
new construction	78,000	\$50.0	
new construction	530 spaces	\$34.0	
new construction	380,000	\$185.0	
renovation	137,000	\$55.0	
renovation	370,000	\$114.5	
addition and	7,500 addition	\$16.8	
renovation	17,000 renovation		
renovation	8,300	\$13.6	
renovation	21,800	\$5.5	
new construction	TBD	\$8.5	
addition	TBD	TBD	
addition	100,000	\$39.0	
renovation	TBD	TBD	
addition and	TBD	TBD	
renovation			
demolition	63,000	TBD	
new construction	TBD	TBD	
renovation	TBD	\$10.9	
new construction	TBD	TBD	
renovation	TBD	TBD	
addition and	50,000 addition	\$120.0	
renovation	170,000		
	renovation		
	PROJECT TYPE addition and renovation new construction new construction new construction renovation renovation renovation renovation renovation new construction renovation renovation new construction addition addition addition addition renovation renovation renovation renovation addition addition new construction renovation new construction renovation new construction renovation new construction renovation addition and	PROJECT TYPE addition and renovation renovation renovation new construction renovation renovation new construction renovation renovation renovation renovation addition and renovation renovation renov	

North Campus

The development of North Campus has been a priority planning focus. Efforts to strengthen physical and functional connections with other campuses, and strategies to further enliven and enrich student life on North Campus, also remain a primary focus of ongoing planning activities. In addition, the ongoing increase in occupancy of the North Campus Research Complex (NCRC) will continue to play a significant role in future of North Campus. The NCRC provides unprecedented opportunity for the university to fulfill current and future needs for its research activities in health, biomedical sciences and other disciplines, and facilitate interactions, without the enormous expense of building similar facilities. The co-location of the College of Engineering with the NCRC, and the close proximity of the Medical Center Campus, creates a rich and dynamic hub for future interdisciplinary opportunities. As of September 2013, nearly 2,200 occupants are located at NCRC, which approximates 80 percent of the total capacity of the site. At least 17 U-M schools and colleges are represented at NCRC.

Current and Planned Major Projects FY14 – FY19 – North Campus

PROJECT NAME	PROJECT TYPE	GROSS SQUARE	ESTIMATED COST
		FEET	(MILLIONS)
G.G. Brown Memorial Laboratories	addition	62,500	\$46.0
addition [under construction]			
G.G. Brown Memorial Laboratories	renovation	220,000	\$47.0
renovation [in design]			
Earl V. Moore Building renovation and	addition and	34,000 addition	\$23.27
addition [in design]	renovation	28,000 renovation	
Nuclear Engineering Laboratories	renovation	17,400	\$11.4
renovation [in design]			
North Campus Research Complex Building	renovation	68,000	\$17.5
20 East Wing renovation [in design]			
Mobility Transformation Facility [in	new construction	TBD	\$6.5
design]			
Baits I complex demolition	demolition	165,000	TBD
Mitchell Field renovation and new	renovation and	TBD	TBD
building	new construction		
Art and Architecture Building addition	addition	TBD	TBD
Pierpont Commons cafeteria renovation	renovation	TBD	TBD
North Campus Recreation Building	addition and	TBD	TBD
renovation and addition	renovation		
Bursley Hall dining renovation	renovation	TBD	TBD
Transportation (Bus) Facility	new construction	TBD	TBD
Naval Architecture and Marine	new construction	TBD	TBD
Engineering Towing Tank Building			
Engineering Technology Center	new construction	TBD	TBD
Chemical Engineering and Materials	new construction	TBD	TBD
Science Engineering Building			

Ross Athletic Campus

The Ross Athletic Campus is primarily a venue for the Athletic Department, with numerous athletic fields and facilities. Facility program planning by the Athletic Department, and by Student Life – Recreational Sports, has resulted in a number of new priority projects planned over the next five years with the goal of enriching the experience for student athletes and for student recreation.

Current and Planned Major Projects FY14 - FY19 - Ross Athletic Campus

carrent and riamica major riojects ri	_	amene campus	
PROJECT NAME	PROJECT TYPE	GROSS SQUARE	ESTIMATED COST
		FEET	(MILLIONS)
Schembechler Hall Entrance and Museum	addition and	7,000 addition	\$9.0
renovation and addition [under	renovation	7,000 renovation	
construction]			
Shepherd Softball Center [under	new construction	10,000	\$4.0
construction]			
Field Hockey Stadium, Team Center, and	new construction	15,000	\$13.5
Ocker Field improvements [in design]			
Varsity Drive Building renovation for	renovation	71,000	\$27.45
Museums Dry Collections [in design – off			
campus to south]			
Indoor Track and Team Center	new construction	TBD	TBD
Outdoor Track and Field Facilities	new construction	TBD	TBD
South Athletic Performance Center /	new construction	TBD	TBD
Rowing / Soccer Center			
Lacrosse Outdoor Stadium and Team	new construction	TBD	TBD
Center			
Athletics Operations Center	new construction	TBD	TBD
New Golf Club House	new construction	TBD	TBD
Intramural Sports Building renovation	renovation	TBD	TBD

East Medical Campus

East Medical Campus is primarily an outpatient clinical care complex that includes associated research and medical education activities. Opportunities for growth and investment by the University of Michigan Health System over the next fifteen years includes new "cluster" development potential for ambulatory care and/or academic activities. Plans for future facilities at this location will fit within the framework of plans for the broader Health System and the university at large. Storm water management, transit and non-motorized transportation strategies, parking, and infrastructure improvements are all campus components that will be considered with any proposals that may come forward in the future. There are no major projects currently in planning within the next five years for East Medical Campus.

Infrastructure and Deferred Maintenance

The university is committed to the renewal of its physical plant in order to support the overall academic and research mission. Each year a significant number of infrastructure projects are

prioritized through the Facility Condition Assessment program (as described in Section IV). These projects include both repairs and replacement of the various components within the buildings and to the infrastructure supporting the facilities. Projects have addressed a wide variety of needs including mechanical and electrical systems, life safety systems, building control systems, structural concerns, and building enclosure items like windows, masonry, and roof structures.

Many of the above projects involve major renovations to existing buildings. A planning priority is to adapt existing facilities to meet current and future program needs for the campus by updating building infrastructure and re-programming/reconfiguring existing buildings. Re-programming/reconfiguring addresses building density, program and organization adjacencies, open site use, building addition or replacement options, and redistribution of the density to other campus areas.

The Capital Renewal Fund, established by the Office of the Provost, enables General Fund academic and administrative units to apply to have an aging building considered for renovation and reprogramming to address major infrastructure needs and to renew and extend the useful life of the building. The fund is used specifically for major renovations to an existing building and focuses on retaining the existing building footprint and square footage as much as possible. A key consideration during the review and selection process is how the building fits into the overall strategic vision and master plan for the physical campus.

In order to guarantee a healthy and strong campus infrastructure for future generations, the university has established a standard policy on fundraising related to facilities endowments. Specifically, the university's total fundraising goal for any new facility includes an additional amount for endowment, beyond the construction cost. The university will match, dollar for dollar, the portion of any contribution applied to the facility endowment within certain thresholds. All such endowed funds are managed by the Executive Vice President and Chief Financial Officer (CFO). The CFO's office works closely with the users of the building to prioritize the facility needs and the uses of the endowment distributions to support capital maintenance and upkeep of the facility.

Status of State Building Authority Projects (Ann Arbor)

The following projects are components of the University of Michigan's previously approved Program Statement for renewal of four buildings on the Central Campus:

- Perry Building Renovation
 - Construction has been completed and the building is occupied.
- West Hall Renovation
 - Construction has been completed and the building is occupied.
- Mason Hall and Haven Hall Renovation and Addition
 Construction has been completed and the buildings are occupied.

• Literature, Science and the Arts Building Renovation
Construction has been completed and the building is occupied.

The following projects were components of the Supplemental Capital Outlay Request approved for FY 2005:

- Observatory Lodge Renovation
 - Construction has been completed and the building is occupied.
- Student Activities Building Renovation
 Construction has been completed and the building is occupied.
- Michigan Memorial Phoenix Laboratory Renovation
 Construction has been completed and the building is occupied.

The following project is part of the Capital Outlay Request approved for FY 2011:

• George Granger Brown Memorial Laboratories Renovation Design is in process.

Status of State Building Authority Projects (Ann Arbor)

Completed Projects	Lease Start Date	Lease Termination Date
C. C. Little Science Building Renovation	February 1997	February 2032
S. T. Dana Building Renovation	November 2003	November 2038
Perry Building Renovation	November 2003	November 2038
West Hall Renovation	January 2005	January 2040
Mason Hall and Haven Hall	November 2005	November 2040
Renovations and Addition		
Literature, Science and the Arts	August 2007	August 2042
Building Renovation		
Observatory Lodge Renovation	November 2008	November 2043
Student Activities Renovation	December 2009	December 2044
Michigan Memorial Phoenix	December 2009	December 2044
Laboratory Renovation		

2025 Sustainability Goals and Strategies

The 2025 goals are based on a 2006 baseline adopted by the Integrated Assessment process for all goals with exception of the Sustainable Food Goal (as no baseline data was available). All goals will be re-evaluated in 2016 and may be adjusted to become more stringent or less stringent. Goal evaluation and adjustment will be based on many variables including but not limited to changes in technology, the State of Michigan energy platform, economics, and competing university priorities.

Goal 1: Decrease campus scope 1 and 2 carbon dioxide emissions by 25 percent.

This goal focuses on U-M's highly efficient Central Power Plant and the buildings which it heats, cools, and electrifies; purchased power and increasing the percentage of renewable energy in the university's energy portfolio; increasing efficiency of new construction and renovated facilities; and behavior change in the campus population directly impacting how facilities are used.

Goal 1 successes to date:

- Planet Blue Operations Teams One way the university is addressing the growth in building
 energy demands is through the Plant Blue Operations Teams program, which actively
 engages the university community to conserve utilities thereby saving money and
 benefiting the environment. At the conclusion of FY2013, 130 general fund buildings had
 been put through the program resulting in an overall average energy savings of 8.4 percent
 and an annual utility cost avoidance of nearly \$4M.
- DTE Solar Partnership the university has entered into an agreement with DTE in a
 partnership arrangement to install approximately 600kW of ground based solar arrays on
 North Campus. The arrays have been installed and are operational in two locations. They
 provide an opportunity for educational interaction and display public support for
 sustainable energy projects for the state.

The university's design guidelines and standard practices challenge architects to exceed the minimum baseline energy performance mandated by codes. Typical standard energy savings measures employed include additional insulation in foundation walls, exterior walls, and roof assemblies; energy efficient windows/glazing; occupancy sensors to reduce lighting levels; variable water flow controls; resetting of space temperatures based on occupancy sensors; and exhaust heat recovery. The U-M Design Guidelines for Design and Construction outline the institution's detailed requirements related to energy efficiency as well as sustainable design and environmental stewardship.

Currently under evaluation, the university is exploring the feasibility of expanding the electric generating capacity of the Central Power Plant by 30 MW. The additional power would be provided by two 15 MW gas turbines with waste heat boilers for maximum efficiency. Implementation of this arrangement will reduce university scope two emissions by 40,000 MT of CO_2 and provide capacity for future growth load.

<u>Goal 2</u>: Decrease carbon intensity of passenger trips on U-M transportation options by 30 percent.

The university aims to reduce emissions associated with transportation by modeling and promoting sustainable transportation alternatives, such as public mass transit, car pools and van pools, and bike programs.

Goal 2 successes to date:

- GreenRide is a web-based ride-matching system that helps university commuters find carpool/vanpool partners by searching for other employees who live nearby and have similar schedules. Over 3,000 employees have registered since the program launched in May 2008. The GreenRide program reduces the load on campus parking infrastructure, vehicle maintenance, and vehicle depreciation expenses. It reduces parking and campus traffic congestion and vehicle emissions, and contributes to the improvement of air quality.
- U-M Sponsored Vanpool system has entered its tenth decade of operation, with 600 employees participating in 95 vanpools.
- The university operates the largest alternative fuel fleet in the state with 1,078 total vehicles that includes 15 all electrical, 56 gas-electric hybrid, 526 fueled with E-85 ethanol, 89 B-20 bio-diesel fueled trucks and buses, and 7 diesel-electric hybrid buses.

<u>Goal 3</u>: Reduce waste tonnage diverted to disposal facilities by 40 percent.

Strategies include:

- Reduce the use of disposable paper products.
- Install multi-function recycling receptacles in all dormitories, classrooms, conference rooms, labs, appropriate common spaces, and athletic venues.
- Continue to expand the Sustainable Laboratory Program reducing chemical waste disposal.
- Work with university vendors to reduce packaging materials and minimum volume orders to reduce waste.

<u>Goal 4</u>: Protect Huron River water quality by reducing runoff from impervious surfaces and reducing the volume of land management chemicals used on campus by 40 percent

The campus landscape is a critical part of the university's commitment to responsible environmental stewardship. The U-M has a legacy of landscape planning that is sensitive to water-use and inputs to the regional Huron River Watershed.

Strategies include:

- Apply an integrated landscaping approach that recognizes vegetation, soils, pavement systems, and storm water management as interlinked, and helps to restore the quality and capacity of the regional Huron River watershed.
- Minimize use of potable water for irrigation, increase water retained for beneficial purposes on campus, and improve the quality of water outflow.
- Reduce water use for infrastructure to the maximum extent possible.
- Reduce storm water runoff through on-site mitigation techniques such as rain gardens, storm water retention basins, or green roofs, when appropriate.
- Minimize irrigation through the use of drought resistant plantings and properly selected soils.

<u>Goal 5</u>: Purchase 20 percent of U-M food in accordance with the U-M Sustainable Food Purchasing Guidelines.

The U-M purchases food for dozens of licensed food operations on campus, including athletic event related food operations, campus eateries, Residential Dining Services, University Unions, and the U-M Health System. University food service operations purchase approximately 80 percent of all food items from a prime vendor managed through Purchasing Services.

While not always the case, the sustainability of food generally increases as the distance it travels from the point of harvest to consumption decreases. Minimizing transportation and refrigeration generally reduces fossil fuel consumption and carbon dioxide emissions. Local food also requires fewer preservatives and less packaging. In addition, local production often employs a more diverse crop strategy, which reduces pest susceptibility and the need for pesticide and chemical fertilizer use. Finally, supporting local farmers and growers keeps money circulating within the community longer and directly profits local producers.

<u>Action Item: Community Awareness</u> – The university will pursue stakeholder engagement, education, and evaluation strategies toward a campus-wide ethic of sustainability. The success of achieving the goals in the plan will require the active contribution of every member of the university community. The U-M cannot delegate responsibilities to a handful of departments, but rather must change behaviors as well as policies and practices.

Section VI Capital Outlay Project Request FY15

FISCAL YEAR 2015 CAPITAL OUTLAY PROJECT REQUEST

Institution Name: University of Michigan – Ann Arbor

Project Title: School of Dentistry Project

Project Focus: Academic, research, clinical and administrative support

Type of Project: Renovation and addition to the Dental Building and W.K. Kellogg

Foundation Institute

Program Focus of

Occupants:

Dental and oral healthcare teaching, research, and clinical patient care

Approximate Square Current building is 378,556 gross square feet, 209,363 net assignable

Footage: square feet. Proposed project increases the building by ~13%.

Total Estimated Cost: \$120 million

Estimated Start/ Start: Spring 2014 (upon authorization)

Completion Dates: Completion: Winter 2019 (to accommodate phased construction)

Is the Five-Year-Plan posted on the institution's public internet site?

Yes
Is the requested project the top priority in the Five-Year Capital Outlay Plan?

Yes
Is the requested project focused on a single, stand-alone facility?

Yes

1. Describe the project purpose.

As one of the oldest and highest ranked dental schools in the country, the University of Michigan School of Dentistry has earned a reputation of nearly 140 years of innovation and excellence. Through a combination of education, patient care, research, and community service, our students, faculty and staff are committed to improving the oral health and well-being of people in the State of Michigan, across the nation, and around the world. The school not only provides the educational foundation and clinical experience for highly-skilled dentists, dental hygienists, and graduate students trained in current and emerging areas of oral healthcare, but also specializes in research and continuing professional education that advances the field of dentistry and impacts oral healthcare practices at the local, national, and global levels.

The School of Dentistry consistently ranks among the top five dental schools in the country, but is increasingly challenged in its current facility to fulfill its academic, research, and clinical patient care mission in its current facility. The School of Dentistry occupies the Dental Building and W.K. Kellogg Foundation Institute, a teaching, research and clinical building comprised of four interconnected sections: the W.K. Kellogg Foundation Institute (1940), the Dental Clinic (1968), the Research Tower (1971), and the Library (1973). The newest section of the building is 40 years old while other areas are over 70 years old. Although updates have been made where possible over the years, the building has reached the point where a major renovation is

needed to support the school's academic, research, and clinical programs and extend the life of the building.

Because of the constraints the existing facility has on its core mission, the School of Dentistry recently commissioned an architectural firm specializing in science and higher education facilities (Lord, Aeck & Sargeant Architecture) to study its facility and determine its programmatic space needs for the next 10 years. The study indicated that the school's most pressing needs require improvements to teaching clinics and research space. Of the 209,363 net assignable square feet (nasf), approximately 44% (92,331 nasf) is in serious need of renovations and additional space is needed to meet current and growing programmatic needs.

Research Facilities

With few exceptions, the Dental Building and W.K. Kellogg Foundation Institute research design and infrastructure is the legacy of 1960s planning, which never anticipated current technology, present levels of research involvement, or the collaborative manner in which research and teaching are conducted today.

- Most labs are overcrowded and core service/support areas are dispersed, leading to operational inefficiencies and redundant support systems and associated infrastructure requirements.
- Many labs are oddly shaped or too inflexible to accommodate modern research equipment, in some instances leading to positioning equipment without sufficient space for door access or egress.
- Lack of space for modern research programs or growth in new programs compromises the school's ability to maintain its top position among schools of dentistry competing for research funding and top students, faculty and scientists.
- Lack of adaptable and flexible space for co-locating research themes compromises the school's ability to cluster research groups to enable intellectual synergies and more collaborative research.
- Lack of sufficient quality and quantity of space has led the School to place nearly 25% of its research mission (~12,000 nasf) in facilities outside the building. This not only results in increased operating expenses, but also compromises opportunities for collaboration with colleagues who are physically located within the school.

Teaching Clinics and Patient Care

In addition to teaching and research, clinical education and patient care are also part of the School of Dentistry's core mission. The clinics enable students to receive hands-on experience treating patients before entering the workforce and provide an affordable option for patients in the community and around the State of Michigan to receive oral healthcare. Services range from exams, x-rays, cleanings, and fillings to orthodontics and cosmetic dentistry to periodontics to oral and maxillofacial pathology and reconstructive surgery.

In fiscal year 2013, students and faculty had nearly 134,000 patient visits at the Dental Building and W.K. Kellogg Foundation Institute and treated over 6,200 children under the age of 18. Patients traveled to Ann Arbor from 69 out of 83 counties in the state. Over 20% of these

patients were Medicaid recipients, so the clinics are of particular benefit to this constituency of patients who may have limited options for being treated elsewhere or are considered at-risk patients.

- Aging, outdated clinics The teaching clinics are over 40 years old and comprised of 144 small (78 nasf) cubicles with fixed furniture and infrastructure and limited aisle space that compromise patient privacy and make treating physically disabled patients nearly impossible. (Contemporary treatment cubicles are typically ~120 nasf.) The tightly confined spaces also present daily challenges in managing basic infection control, instrument usage, and patient flow within the clinic area, as well as providing sufficient space for patients and their caregivers to wait for appointments. The Oral Surgery Clinic also includes areas that date back to the 1940s and has an inadequate quantity and quality of treatment rooms that do not meet contemporary surgical standards.
- Poor patient access The main clinic entrance, located on the south "street" side of the building, does not support efficient, patient-centered care. It is another legacy of 1960s planning, representing a time when most patients arrived by bus or on foot. Today, most patients arrive by car and enter from the parking structure located on the north side of the building. The mismatch between where patients enter the building and where they check in means patients and their caregivers must walk a significant distance through various sections of the building, without clear sightlines or an easy path to follow, before reaching a staff member for assistance. This problem has not lessened with improved signage and poses a challenge for the elderly and those with physical challenges.

The current clinic entrance also prevents the school from treating patients during the evenings or weekends because it cannot be secured or separated from the rest of the building during off hours. As a result, the school cannot provide more convenient hours of operation for its patients.

- Inadequate special needs clinic space The school is in critical need of dedicated space to train dental students on how to provide care to special needs patients (i.e., those with disabilities or have complex medical conditions). These patients require specialized treatment areas that are barrier free, provide private operatories, and enable special equipment to be used to meet their unique needs.
- Lack of interprofessional clinic space A recent accreditation mandate for schools of dentistry and other health profession schools requires providing interprofessional education for students. This requires having clinic space that can accommodate multiple health care professionals (e.g., dentists, pharmacists, social workers, and others) working together with patients at a given time in a real or simulated setting. The current clinic space is not sized appropriately to accommodate teams of professional students and faculty working with patients.

In addition to research and teaching clinic needs, the building also has a number of facility-wide issues that negatively affect the school's mission and activities.

- Electrical system There is no emergency generator for the building. This has severely
 compromised patient care and research in a power outage. Electrical service panels are
 at capacity, preventing equipment from being added or upgraded.
- Heating, ventilation, and air conditioning (HVAC) The HVAC system is inefficient and running at maximum capacity, creating environmental problems for building occupants and unnecessary utilities costs. Too few fume hoods exist for wet-lab research and no additional fume hoods can be added. Medical air system piping is old, unreliable, and poses safety concerns.
- Waste and suction lines Lines are corroding and need to be replaced.
- Elevators The building lacks a service/freight elevator. Chemicals, equipment, instruments and other research materials are transported in standard passenger elevators.
- Life/safety needs The building requires updates to emergency lighting and signage, as
 well as improvements to stairwells to better ensure the safety of students, faculty, staff,
 and visitors.
- Barrier-free code compliance Many restrooms are not wheelchair accessible.

2. Describe the scope of the project.

The University of Michigan is requesting State of Michigan funding assistance to renovate the up to 73-year-old complex (Dental Building and W.K. Kellogg Foundation Institute) and provide a modest addition to align the facility with the School of Dentistry's academic, research, and clinical mission and extends the life of the existing building. The anticipated scope of the project includes:

- Updating aged infrastructure, including outdated heating, ventilation, mechanical, electrical, and plumbing, and life/safety systems
- Renovating and expanding teaching clinics to co-locate and provide modern patientcentered care
- Constructing a special needs/interprofessional care clinic with specialized facilities to treat patients with disabilities and complex medical conditions and sized to accommodate special equipment and teams of health care professionals (e.g., dentists, pharmacists, social workers, and others) working together
- Moving the clinic entrance and reception areas to the north side of the building to improve patient accessibility
- Creating modern, open, flexible, and adaptable research labs through renovation expansion to support the school's world-class research
- Improving the school's signature exterior plaza area to make it more usable and inviting for students and visitors and more environmentally sustainable

To address these critical facilities concerns, the university proposes a renovation/construction project to the Dental Building and W.K. Kellogg Foundation Institute that:

- Renovates 50% of the existing, interconnected building (in varying degrees)
- Adds approximately 50,000 gross square feet (or 30,000 net assignable square feet) of new space to address programmatic needs. This represents a ~13% increase to the overall building footprint and a 14% increase in usable (net assignable) space.
- Addresses pressing infrastructure needs.

3. How does the project enhance the core academic and/or research mission of the institution?

A renovation and addition to the Dental and W.K. Kellogg Institute Building would have a significant impact on the academic and research mission of the school and the institution. It would enable the school to:

- Continue a tradition of excellence and leadership as a top-ranked program by providing a state-of-the-art teaching and learning environment for students and faculty
- · Recruit and retain top students, faculty, scientists, and staff
- Better compete for research funding and expand its research portfolio to include more innovative and interdisciplinary research programs
- Provide more patient-friendly, accessible clinic space
- Expand clinic hours to evenings and weekends to better meet patient scheduling needs
- Provide dedicated clinic space designed specifically for patients with disabilities and complex medical conditions
- Offer interprofessional curricular programs to maintain accreditation as required by the Commission on Dental Accreditation

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

The School of Dentistry currently has a significant economic and health impact on the State of Michigan today that would be enhanced greatly by the project in the future.

As one of only two dental schools in the state, and the only public dental school, University of Michigan dental graduates are found in virtually every community in Michigan and serve as leaders in many aspects of local life. Currently, nearly 60% of the 6,320 dentists licensed in the State of Michigan and over 1,500 dental hygienists are University of Michigan alumni.

In addition to the oral healthcare provided at the school, students and faculty of the School of Dentistry provide care throughout the state to underserved and at-risk populations. By providing these experiences for our students, they are better positioned to engage in more complex treatment needs, address the statewide burden of access to care, and work with allied health care professionals to provide the best care for our community. The students who staff these clinics develop their didactic, preclinical, and clinical skills in the Dental Building and W.K. Kellogg Foundation Institute facility that is being submitted for capital outlay consideration.

- Underserved and at-risk programs Through the school's Community-Based Dental Education program at 29 sites throughout the state, at-risk populations are cared for at Federally Qualified Health Centers, Community Clinics and in private offices. From 2005 to 2013, over 113,300 patients were provided with over \$28 million in services encompassing nearly 225,500 procedures. The school also operates the Community Dental Center in Ann Arbor, providing care to the underserved in Washtenaw County. The Wolverine Patriot Project, initiated by a dental student and in collaboration with school faculty and alumni in the state has leveraged a \$10,000 investment toward providing \$57,000 in services for 29 homeless veterans in Gaylord, Michigan.
- Pediatric programs Children in the state represent one of the most vulnerable populations. Early intervention in oral health can have a lifelong impact on overall health and quality of life. The School of Dentistry actively participates in the Healthy Kids Dental program, which currently takes place in 77 counties in the state. In addition, the Pediatric Dentistry Department works in collaboration with the Pediatric Dentistry Residency Program at the Hurley Medical Center (Flint) and the Mott Children's Health Center to provide services to children throughout Genesee County. An increasing number of our graduates choose their Community-Based Dental Education at Bay Mills (Brimley), which is a site that focuses on pediatric patients with special needs.

The School of Dentistry project ensures that our students are taught in contemporary facilities with state-of-the-art technology and prepares them with the highest quality education and practical skills and competencies to make a positive and productive impact the moment they enter the oral healthcare workforce.

School of Dentistry faculty and scientists also have a significant economic impact on the state. In the last 12 years, the school's faculty have received 40 patents, 88 inventions, and participated in 64 license agreements. In fiscal year 2013 alone, research expenditures for the school totaled over \$18.5 million, which has a positive impact on the local economy. The School of Dentistry project provides researchers with a modern, flexible, and adaptable research environment that enables them to expand their research portfolios and explore innovative and advanced methods for patient care and treatment, as well as more interdisciplinary research, all of which can lead to opportunities for more technology transfers and spin-off companies for the State economy.

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

Since buildings vary so much in size, design, infrastructure and age, the university considers utilization of existing facilities primarily on a case-by-case, project-by-project basis. For the School of Dentistry project, the university had an external consulting firm that specializes in science and higher education facilities (Lord, Aeck & Sargeant Architecture) study the existing program and facility to determine space use and functional use efficiency, based on their

experience with comparable facilities elsewhere in the U.S. The consultants also identified programmatic areas that require space improvements.

The study indicated that the school has some existing space that is underutilized and that, in some cases, not enough space is available even if the space was made more efficient. The study recommended that a combination of renovation of existing space and addition of new space are needed to meet the needs of the school.

The project addresses the space and infrastructure needs that were recommended by the consulting firm and validated by the school and the university's Architecture, Engineering, and Construction team.

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

The project addresses emergency lighting and signage and stairwell safety needs. It also ensures that the building infrastructure, as a whole, meets current building and barrier-free design codes and requirements.

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

The University of Michigan is fully committed to sustainability in teaching, research and student life, and has a long history of environmental stewardship in its approach to facility design and construction. The university requires projects with a construction budget of \$10 million or greater to exceed American Association of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Energy Code 90.1-2007 by 30%. The university also requires the incorporation of numerous mandatory energy conservation measures on projects, comprehensive evaluation of additional energy efficiency measures, and comprehensive modeling of energy usage for proposed projects and development of energy impact statements at each phase of design.

All projects (new construction and renovation) with a construction budget of \$5 million or greater are also subject to an environmental review process to help guide the design from a sustainable practices standpoint. At the conclusion of schematic design, the architect is required to develop a preliminary Leadership in Energy and Environmental Design (LEED) score for the project, using accredited personnel, as a measure of the project's overall sustainability.

The School of Dentistry Building project would adhere to these requirements and continue the institution's firm commitment to sustainability.

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

The university will have matching funds available for the project in July 2015. The funds will come from an internal capital renewal fund that was established in fiscal year 2011 to address the growing need for major renovations to aging General Fund buildings.

9. If authorized for construction, the state typically provides a <u>maximum</u> of 75% of the total cost of 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?

We respectfully request state consideration and authorization of 75% of the total project cost. We are open to funding a higher share of the project cost, but doing so would require the university to re-prioritize other high priority needs in order to contribute a higher amount.

10. 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 are expected to be the same or decrease with energy efficiency improvements.

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

The project will have no impact on future tuition costs.

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

If the project is not authorized, the institution will need to delay addressing the School of Dentistry's needs until it has accumulated enough funding to support the project. Not only will the School of Dentistry's need be delayed, but other high-priority academic capital project needs on campus will also be delayed as a result, which will hurt the institution as a whole.

A delay will significantly hurt the School of Dentistry's ability to deliver quality education, research, and clinical care. Top students, faculty, and scientists will likely be recruited by other top-ranking schools of dentistry with newer facilities and growth space. The competition for research funding will be even more competitive than it is today and will likely go to schools of dentistry with more modern research labs and labs that better can support new and interdisciplinary research. Patients will continue to be given the highest quality care possible, but will continue to experience this care in less than optimal conditions.

The impact of not authorizing the project is great and hurts not only the School of Dentistry and the University of Michigan, but also patients across the State of Michigan now and in the future.

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

Two alternatives to this project were considered: building a new, stand-alone School of Dentistry Building, and renovating the existing building without an addition. Building a new building is too costly to the institution, would require placing the school far from their current location, and would be too disruptive to current activities. Renovating the existing building only without additional space addresses some, but not all, of the school's programmatic needs.