

# WAYNE STATE UNIVERSITY

FY2013 Capital Outlay Project Request

&

FY2013-2017: 5-Year Capital Outlay Plan

Submitted to the Office of the State Budget

November 4, 2011

By: Richard J. Nork 

Vice President for Finance and Business Operations

## Table of Contents

Executive Summary	Page 1
Mission Statement	Page 2
Instructional Programming	Page 2
Existing Academic Programs	Page 2
Projected Academic Programs	Page 4
Unique Characteristics of Wayne State's Academic Mission	Page 5
Other Initiatives Impacting Facilities Usage	Page 8
PACE Program	Page 8
2020 Campus Master Plan	Page 8
Wayne State University Research and Technology Park	Page 9
Economic Development Impact of Current/Future Programs	Page 10
Staffing and Enrollment	Page 11
Enrollment	Page 11
Enrollment Patterns Over the Next Six Years	Page 13
Extension Center Summary & Web Class Report	Page 14
Projected Enrollment over the Next Five Years	Page 15
Staff/Student Ratios	Page 15
Current and Projected Class Size	Page 15
Facilities Assessment	Page 16
Functionality of Existing Structures and Space Allocations to Programs	Page 16
Deferred Maintenance and Facilities Condition, Current Replacement Value	Page 16
Utility Systems, Infrastructure and Adequacy	Page 17
Strategic Energy Plan	Page 18
Facilities and Land Use	Page 19
Building and Classroom Utilization Rates	Page 20
Mandatory Facilities Standards	Page 20
Utilization	Page 21
Bond Status	Page 21
Implementation Plan	Page 22
State Capital Outlay Projects	Page 22
Non-State Capital Outlay Projects	Page 22
Under Construction	Page 24
Status of On-going SBA Funded Projects	Page 25
Appendix I – FY 2013 Capital Outlay Project Request	Page 25
Appendix II –Current Replacement Value	Page 30

## **Executive Summary**

Wayne State University continues to request State of Michigan Capital Outlay funding support for the Multidisciplinary Biomedical Research Building. The project program of detailed space requirements and the schematic design have been submitted for State review and acceptance. The university now requests authorization to proceed with the final design and construction for a total project budget of \$90.4 million, and with the State's funding contribution of \$30.0 million.

The MBRB has been WSU's priority one project submitted for Capital Outlay consideration since FY 2009, as a new research facility is critical to enabling WSU to participate in the National Institutes of Health (NIH) Clinical Translational Science Award (CTSA) funding and initiatives. Last year (FY 2012 funding cycle), WSU proposed to develop a new 400,000 square foot facility in partnership with Henry Ford Health System (HFHS) at a total cost of approximately \$230 million. The building was to be constructed near the main HFHS hospital in Mid-town Detroit with approximately equal participation (both in terms of cost and square footage allocation) by both partners. WSU requested \$90 million in Capital Outlay funding to partially cover its portion of the costs of the MBRB project, and in December, 2010, was conditionally awarded \$30 million by the State of Michigan and was authorized to proceed with final programming and schematic design in accordance with State project development guidelines.

HFHS notified WSU in late August of 2011 that it was necessary to significantly reduce the level of their participation in the MBRB project due to capital budget constraints and conflicting priorities during the next 3-5 years. Accordingly, the project details included in the submitted schematic design represent a smaller building with limited participation by HFHS. In this regard, the MBRB is currently planned to be approximately 196,500 gross square feet in size, at a total cost of \$90.4; with about 93 percent of the facility to be occupied by WSU. The current size and scope of the project will provide enough laboratory space for WSU to support 48 principal investigators (compared with 55 assumed in the project plan submitted last year), and for HFHS to have enough of a presence in the new facility to still leverage the collective and compatible research strengths of both organizations.

The project scope includes plans to renovate and re-purpose approximately 127,700 gross square feet of existing space in the former 1927 Dalgleish Cadillac dealership building designed by famed architect Albert Kahn, and construct an additional 78,000 gross square feet of new companion building fronting Woodward Avenue. The project represents an innovative

opportunity to redevelop an entire 2.75 acre city block that is currently vacant real estate, further contributing to the economic revitalization of the immediate neighborhood and Mid-town Detroit. In addition, there is sufficient adjoining space in this block (which is located in TechTown, WSU's Research and Technology Park, and just 2 blocks from HFHS's corporate headquarters) to support a phase II of this project which may be undertaken with more significant participation of HFHS in 3-5 years.

We believe the potential health care delivery benefits resulting from MBRB research discoveries translated from the bench to bedside justify the investment the State of Michigan and Wayne State University will make in this project. The ability to progress these outcomes in partnership with Henry Ford Health System both now, and more significantly in the future enriches the potential derivatives of this investment; and building the MBRB in TechTown, where minds and means commercialize laboratory discovery into employment, makes this project proposal even more compelling. With the funding support from the State of Michigan granted in 2010, WSU will make the MBRB and its entire attendant benefits a reality by the end of 2014.

### **I. Mission Statement**

Wayne State University is a national research institution dedicated to preparing students to excel in an increasingly advanced and interconnected global society. As an urban research university, Wayne State's mission is to discover, examine, transmit and apply knowledge that contributes to the positive development and well-being of individuals, organizations and society.

### **II. Instructional Programming**

#### *Existing Academic Programs*

Wayne State is a comprehensive research university with 13 schools and colleges administering more than 376 academic programs, including 128 bachelor's degree programs, 124 master's degree programs, 59 doctoral degree programs and 65 certificate, specialist and professional programs, many of which rank in the top tier nationally. The university offers higher education to more than 30,764 students. Seven extension centers in the metropolitan area provide access for residents to a wide selection of off campus courses. Wayne State is a significant and influential force in metropolitan Detroit's educational and cultural landscape, and the 43-acre research and technology park that is supported by the university has made it a major player in Michigan's economic turnaround.

Approximately 91 percent of the university's students are from Michigan, with about 82 percent from the three-county metropolitan Detroit area. More than three-quarters remain in the state following graduation. These students represent the return on the State of Michigan's continuing investment in the university. Wayne State graduates provide the highly educated workforce necessary to transform and power Michigan's economy in the 21<sup>st</sup> century.

Wayne State graduates serve the citizens of Michigan with advanced professional training in business; engineering; education; law; pharmacy and health sciences; medicine; nursing; social work; fine, performing and communication arts, liberal arts; and the basic sciences. Every day Wayne State graduates play a critical role in Michigan life, from local physicians to scientists and engineers working in the latest high-tech spin-off companies.

Figure 1 illustrates the university's fall 2011 enrollment by headcount and degrees awarded in the 2010-2011 academic year. Note that the Library & Information Science program moved from the Graduate School in Spring/Summer 2009 and is now being reported separately. In addition, these figures exclude graduate medical education students.

Figure 1  
**Wayne State University**  
**Degrees Granted & Enrollment**

<b>School/College</b>	<b>2010-11 Degrees Awarded</b>	<b>Fall 2011 Enrollment</b>
School of Business Admin.	777	3,462
College of Education	801	3,588
College of Engineering	452	2,209
College of Fine, Performing & Comm. Arts	389	2,523
Graduate School	10	34
Law School	215	604
Liberal Arts & Sciences	1,567	13,521
Library & Information Science	250	577
School of Medicine	398	1,594
College of Nursing	227	715
Pharmacy and Health Sciences	324	995
School of Social Work	383	942
<b>Grand Total</b>	<b>5,793</b>	<b>30,764</b>

*Sources: Office of Budget, Planning and Analysis*

### *Projected Academic Programming Changes*

The Multidisciplinary Biomedical Research Building (MBRB) will strengthen the university's ability to conduct translational research and it continues to be Wayne State's priority one capital outlay request for State funding support. Translational research is a key scientific need identified by the National Institutes of Health. The project's priority status is based on the university's top two strategic goals: to remain and enhances its status as a premier urban research university and to provide an exceptional learning environment. The MBRB is essential to helping Wayne State bring additional research dollars to campus and to providing students and research faculty with laboratories and the technology necessary for continued academic success and expanded scientific discovery.

Through a strategic planning process, Wayne State identified many initiatives that will improve students' learning experience, boost the university's national reputation for research and scholarship, enrich the quality of campus life, and build community and private sector partnerships that will diversify the university's financial resources. The university views the MBRB as the best opportunity to support its research mission. By providing the best possible research and learning environment, Wayne State will continue to prepare students to excel in an increasingly advanced and interconnected global society, as well as fulfill its promise to provide scientists and clinical investigators with top-quality environments in which to work.

The MBRB will feature the flexible configurations that optimize transdisciplinary clinical and translational research. Flexible designs can easily accommodate changes in personnel, placement of specialized equipment and the reassignment of laboratory bench surfaces at minimal cost and little disruption to ongoing activities. Additional office and administrative space also is planned, along with a large 100-seat presentation / seminar room.

The new building will be a tool for attracting and retaining the gifted students, faculty and staff required to sustain the university's excellent performance in research. Students with access to the MBRB's state-of-the-art research and learning facilities will be better equipped to participate in the modern technology-rich workplace, enhancing their contributions to the state's economic success.

In addition to constructing the MBRB, the university plans other new construction projects and major renovations within the next five years to strengthen its research and educational capabilities. Wayne State will identify revenue from state capital appropriations, bond sale proceeds, user fees, federal government grants, private partnerships and private donations to secure funding for these projects.

The following summarizes the university's major facility priorities during the next five years:

Multidisciplinary Biomedical Research Building: \$90,400,000  
Continued State Capital Outlay Project Request of FY2013  
Chatsworth Apartment Renovation: \$20,000,000  
Classroom Improvement Projects: \$25,000,000  
DeRoy Apartment Renovation: \$20,000,000  
Hilberry Expansion and Renovation: \$30,000,000  
Interdisciplinary Science Research Building: \$110,000,000  
Parking Structure #1 Structural Repairs continued: \$17,500,000  
Other Parking Improvements: \$10,000,000  
Research Building for Cancer Program: \$45,000,000  
State Hall Classroom Building Renovation: \$45,000,000  
Student Center Building Renovations: \$15,000,000  
University Deferred Maintenance Program: \$40,000,000

Wayne State will implement these major initiatives to increase its research stature, and to improve general education, residential, parking, and support and service facilities to meet the changing expectations of students and keep pace with evolving technology. Comfortable, high-tech facilities play a key role in the university's ability to attract the best and brightest students, faculty and staff to Detroit. A dynamic campus with state-of-the-art facilities offers great "curb appeal" to those seeking complementary opportunities for personal and academic growth.

#### *Unique Characteristics of Wayne State's Academic Mission*

Wayne State is Michigan's only urban research university and is ranked by the National Science Foundation among the nation's top 73 public universities for research expenditures. Wayne State also is classified by the Carnegie Foundation for the Advancement of Teaching as "Research University – Very High Activity," a distinction held by only 2.3 percent of universities classified. Through its multidisciplinary approach to research and

education, and its collaborations with government, industry and other institutions, the university seeks to enhance economic growth and improve the quality of life in the city of Detroit, the state of Michigan and across the country.

Wayne State's history and mission require that the university provide access to a high quality, research-focused education. Given the demands of the emerging knowledge-based economy, research plays a significant role in the university's programs at all degree levels. Nevertheless, Wayne State has always served the educational needs of first-generation and working students.

Wayne State University has a distinguished history of making higher education available to students from across Michigan -- many of whom are the first in their families to pursue a degree -- and more than 90 countries around the world. The university enrolled 1,628 international students in fall 2011. Approximately 39 percent of Wayne State's students attend part-time; many work and raise families while attending the university. Seven extension centers in Oakland, Macomb, St. Clair and Wayne counties accommodate almost 15 percent of the student population.

While students are Wayne State's abiding priority, the university also is committed to advancing research that benefits the citizens of Michigan and helps strengthen the state's economy. Some examples are:

- The Department of Communication Sciences and Disorders in the College of Liberal Arts and Sciences has expanded into the Horace H. Rackham Education Memorial Building as a result of a grant from the Carls Foundation. This expansion includes a new Audiology Clinic, the first of its kind in metropolitan Detroit. The grant has helped create a one-stop facility for low-income citizens of Detroit and Wayne County that experience hearing problems – approximately 1,000 individuals every year. The new clinic is also allowing for growth of the audiology program. The department anticipates a full enrollment of 34 students in the audiology doctoral program with the clinic's completion.
- The Smart Sensors and Integrated Microsystems (SSIM) Laboratory in the new, State supported, Marvin I. Danto Engineering Development Center will create opportunities for students to learn about and work with the next revolution in microtechnology. SSIM applications have great commercial promise, not only in the automotive industry, but also in medicine, the environment, aerospace, transportation and national defense.



Although the program initially was tied to the automotive industry, the focus has shifted toward biosensors and medical devices. Research also includes the emerging field of nanotechnology, which uses tiny devices for detection and selective delivery of medicines. SSIM has close research ties with investigators from surgery, cancer research, medical imaging, artificial vision, physics, chemistry and other disciplines. These collaborative efforts will be enhanced greatly by the Marvin I. Danto Engineering Development Center, which will be home to high-priority research projects as well as numerous scholarly activities for students.

- Presidents of the state's three University Research Corridor (URC) institutions released an independent analysis by Anderson Economic Group showing that Wayne State, the University of Michigan and Michigan State University helped create 68,803 jobs and produced \$12.8 billion of net economic benefit for the state in 2006. The study found that these research universities accounts for 94 percent of federal academic research dollars brought into Michigan, and all three are among the top 100 of more than 600 U.S. research universities. The URC's role is to communicate the vital role Michigan's three research universities play in revitalizing the state's economy through transferring technology to the marketplace, educating a high-tech workforce and attracting talent.

The analysis demonstrates that the URC's assets for a knowledge economy are comparable to similar organizations in other regions of the country known for their economic vitality. By working to increase business partnerships, and making their university's resources more well-known, the three presidents hope to help attract business to Michigan and reinvigorate its economy. Increasingly, Michigan's research universities provide the intellectual capital and innovative technology that will make the state competitive again.

Wayne State University also allocates significant resources to a number of exemplary research institutes and centers, including:

- The Center for Automotive Research, which prepares students to solve practical problems in many engineering disciplines. The center focuses on projects with demonstrated potential benefit to Michigan's economy, including alternate and renewable fuels, biofuels and emission controls.
- The Bioengineering Center, which promote the discovery, design, and development of technologies as well as education in the

understanding, mitigation, and prevention of impact-associated injuries.

- The Barbara Ann Karmanos Cancer Institute, with nationally recognized research programs that include breast cancer, developmental therapeutics, molecular biology and human genetics, population studies and prevention, and proteases and cancer. The center also synthesized the first FDA-approved treatments for AIDS.
- The Center for Molecular Medicine and Genetics, which focuses on increasing the understanding, diagnosis, treatment and prevention of disease. The center's activities range from basic research to clinical genetics to translation from the lab to the bedside.
- The Center for Health Research, which advances nursing knowledge and improves the urban community's health through research.

#### *Other Initiatives Impacting Facilities Usage*

As part of its mission to prepare students to excel, Wayne State has embarked on the following initiatives that impact both the size and quality of learning and research space on campus:

#### PACE Program

Graduates of the Wayne State University College of Engineering will be better prepared for careers in the global economy thanks to the university's selection as a member of Partners for the Advancement of Collaborative Engineering Education (PACE). The PACE program is a joint philanthropic initiative of General Motors, EDS, Hewlett Packard, Siemens UGS PLM Software and Sun Microsystems, who together support academic institutions worldwide with computer-based engineering tools to help educate designers, engineers and analysts. On September 18, 2007 the companies introduced Wayne State as their latest university partner and announced an initial in-kind contribution with a commercial value of more than \$408 million, the largest ever in-kind contribution received in university history. The PACE laboratories reside in the new Marvin I. Danto Engineering Development Center.

#### 2020 Campus Master Plan

The 2020 Campus Master Plan for improving and expanding the physical facilities of Wayne State grew out of the first strategic planning process that concluded in 2001. The 2020 Campus Master Plan is a flexible document, written to provide direction and accommodate unanticipated

conditions. The 2020 plan produced a clear picture of the limitations and opportunities for expanding the main campus. The Master Plan places the university's highest priority on facilities that support the university's academic and research mission. The **Multidisciplinary Biomedical Research Building** continues to be Wayne State's priority one capital outlay project. In December 2010, the university was conditionally approved for \$30 millions of State capital outlay support for this project, and the Program Statement and Schematic Design has been submitted for review and approval. Wayne State requests continued State support for the MBRB project as the university's FY13 top priority.

### Wayne State University Research and Technology Park

TechTown, the 43-acre research and technology park and state-designated SmartZone, is north of main campus. TechTown houses a long list of entrepreneurial companies in addition to the State's NextEnergy Center, which will position Michigan as a global leader in the development of alternative fuels. At TechTown, students and faculty work alongside entrepreneurs to refine new generations of high-tech businesses. The technology park not only contributes significantly to the university's research capital, but also strengthens and diversifies the region's economy. TechTown is collaborating with Detroit Public Schools as well as a local charter school to apprentice high school students in these emerging technologies.

TechTown highlights one of Wayne State's great strengths – its ability to partner with industry and government for the good of the populations the university serves. TechTown's partnerships with local industry continue to pay off for Michigan's high-tech enterprise. Additional facility build-out in TechTown will be critical to fully developing these initiatives. In 2009 TechTown completed construction of the fourth and third floors providing a home not only to the Henry Ford Health System but Wayne State University's Perinatology Research Branch and the Michigan NeoNatal Blood Bank, together with prominent facilities such as Shrader Labs. 2009 also saw the venture with the New Economy Initiative and the Kauffman Foundation with TechTown providing the training for up to 1,200 entrepreneurs with the hope of hosting at least 400 new start-up companies in the near future. TechTown is now expanding space to support the PRB program and new tenants including MSBTDC and the Kauffman Foundation. TechTown will be at 100% occupancy with over 60 lease tenants and over 120 other entrepreneurial and related service companies based out of the TechTown facility. The Campus Master Plan includes some real estate and vacant building assets that can be allocated to TechTown if needed.

Through a new \$32 million partnership with the New Economy Initiative, TechTown will be at the epicenter of a new Detroit Regional Innovation Network that will greatly enhance its ability to spark economic development in the region. This network will include a new high technology accelerator housed at TechTown that will draw from the research capabilities of WSU, HFHS, DMC, UM and MSU. The MBRB is proposed to be located across the street from TechTown to maximize the potential commercialization potential of the research performed at MBRB.

### *Economic Development Impact of Current/Future Programs*

As previously mentioned, Wayne State University's impact on Southeast Michigan is substantial. The significant percentage of alumni who remain in the area after graduation contributes greatly to the region's well-being through their professional and personal accomplishments, community activities and financial activity. Additionally, the university is the eighth-largest employer in the city of Detroit with more than 8,000 full- and part-time faculty and staff.

In FY2011, Wayne State spent more than \$540.9 million for compensation, wages and fringe benefits. Expenditures on equipment, supplies, maintenance and services exceeded \$139.5 million. The university awarded more than \$355 million in financial aid (federal, institutional, private, outside and state) to 25,532 undergraduate, graduate and professional students. The contracts awarded for professional design services and construction totaled just over \$19.3 million in FY2011.

The university spent approximately \$257 million in research and development during FY2010. In an effort to diversify financial resources to support its spending priorities, the university actively pursues licensing and other collaborative opportunities. During FY2010, 88 patentable technologies were developed at Wayne State, and the university spent nearly \$1 million to protect its patents. Through FY2010 the university's intellectual property portfolio contained more than 874 properties. Of 102 active licensing arrangements, more than 45 inventions are licensed to 31 Michigan companies. The university has assisted in the start-up of more than 20 companies, most based in Michigan. Wayne State is committed to establishing infrastructure that supports the creation of new companies and encouraging an entrepreneurial culture. Wayne State also is a catalyst in the revitalization of Midtown Detroit. Projects transforming the landscape include:

- Development of 155,000 square feet of privately owned and operated residential units and commercial space as part of the South Village project along Woodward Avenue;

- Construction of three residence halls on campus since 2001, adding 1,800 residents to Midtown;

The University has 33 retail spaces for a total square footage of 132,793. The university filled 3 retail spaces in 2011 on campus with Gateway Deli, Midtown Grill and the Yoga Shelter. Past years, restaurant chains such as Jimmy Johns and Starbucks, and additional commercial tenants such as a hair salon and a pharmacy were added.

Wayne State is committed to being a catalyst for economic growth in the city of Detroit. Recent initiatives include:

- The creation of a corporate engagement center to serve as interface with industry partners
- The Detroit Revitalization Fellows Program
- Live Midtown residential assistance initiative with Henry Ford Health Systems and the Detroit Medical Center
- Investment in the M-1 Woodward light rail rail project
- Buy Detroit procurement initiative with HFHS and DMC
- The redesign and augmentation of WSU's technology commercialization process

### **III. Staffing and Enrollment**

#### *Enrollment*

Several initiatives during the past few years have contributed to an increase in applications include enhancements to the Honors and scholarship programs, aggressive enrollment management efforts, opening the Welcome Center and three new residence halls, and expanding the Comerica Charitable Foundation Academic Success Center.

Referring to Figure 2 below, Fall 2011 enrollment headcount is 30,764 *excluding Graduate Medical Education*. This is 741 fewer students than Fall 2010, a decrease of 2.4 percent. Undergraduate enrollment was down slightly, 1.2 percent, while graduate/professional enrollment dropped by 493 students or 4.6 percent.

Enrollment of new freshmen declined by 8.1% percent or 217 students; however, retention of freshmen students was strong at 77 percent. New

transfer and other students were up 10.6 percent or 241 students over last year. Overall, undergraduate enrollment was 20,589, a 1.2 percent drop.

The enrollment of new graduate/professional students also declined by 437 students or 5.2 percent. Overall graduate/professional enrollment, for both new and continuing students, was down 493 students, or 4.6 percent.

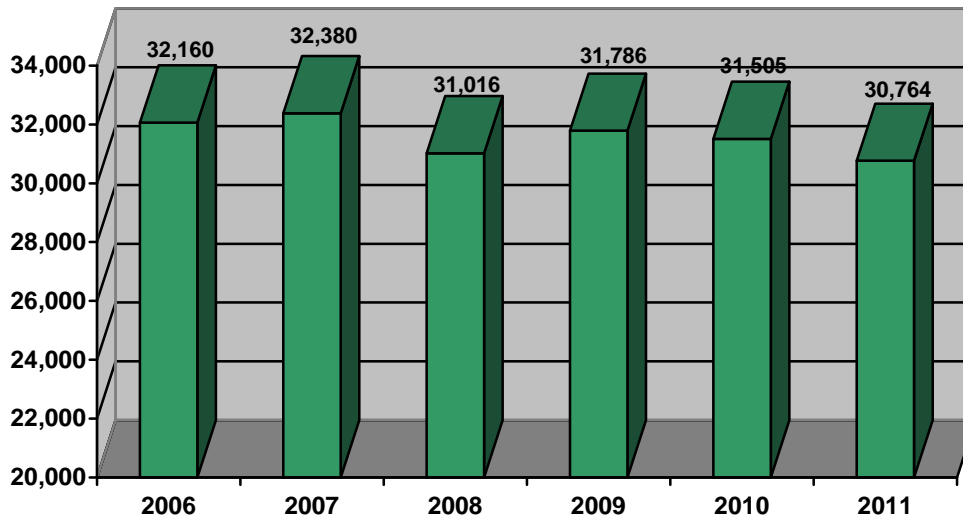
While full-time undergraduate students decreased by 4.8 percent, part-time undergraduate increased by 404 students or 5.6 percent. Full-time graduate/professional student enrollment, excluding medical interns/residents, dropped 3.5 percent. In ten years, undergraduates who are full-time have gone from less than half to 63 percent. Similarly, for graduate/professional students, 56.3 percent are studying full-time. Decreases in enrollment at the graduate level continue at the part-time level.

Total credit hours were 318,214, a 2.7 percent decrease from last year. The last time credit hours were higher than this was in the 1980 Fall term, when credit hours were 346,306. Undergraduate credit hours are down to 2.4 percent. Graduate/professional credit hours are down 3.4 percent less than the drop in headcount for the same group.

Michigan residents represent 91.3 percent of our student population, 3.4 percent are from other U.S. states, and 5.3 percent are international. The university has experienced some decrease in the numbers of international students, including those who are from Canada, but the number of students from other U.S. states continues to grow. There are 1,059 students from other U.S. states and 1,628 students from other countries.

*Enrollment Patterns over the Past Six Years*

**Figure 2**  
*Headcount Enrollment Excluding Graduate Medical Education*



In addition to courses held on main campus in Detroit, Wayne State University offers instruction at seven off-site locations in the tri-county area. As shown in Figure 3, approximately 4,000 students enrolled in courses at the extension centers in Fall 2011. A substantial number of these students are enrolled in classes on main campus as well. Distance-learning initiatives have been launched in the College of Education, School of Business Administration, Law School, School of Medicine, Eugene Applebaum College of Pharmacy and Health Sciences and College of Engineering; the number of web-based classes, in which all or most of the coursework may be completed online, is consistently increasing (see Figure 4). The university offered 238 web-based sections in the Fall of 2011 up from 209 offered in 2010. Innovative course options, combined with campus residential choices, help position Wayne State as a desirable destination school.

*Extension Center Summary & Web Class Report*

Figure 3

<b>Extension Center Summary</b>						
	<b>Section Count</b>		<b>Section Enrollment</b>		<b>Avg Section Enrl</b>	
	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>
<b>Total All Centers</b>	291	305	5,771	5,521	19.8	18.1
<b>Student Headcount &amp; Credit Hours</b>						
	<b>Headcount</b>		<b>Credit Hours</b>		<b>Avg Credit Hours</b>	
	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>
Student Level						
Undergraduate Totals	3,154	3,032	14,052	13,558	4.5	4.5
Graduate Totals	1,060	1,036	3,913	3,596	3.7	3.5
Professional Totals	2	1	6	2	3	2
<b>Grand Total</b>	<b>4,216</b>	<b>4,069</b>	<b>17,971</b>	<b>17,156</b>	<b>4.3</b>	<b>4.2</b>

Figure 4

<b>Web Class Report</b>						
	<b>Section Count</b>		<b>Section Enrollment</b>		<b>Avg Section Enrl</b>	
	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>
<b>Totals</b>	209	238	5,911	7,064	28.3	29.7
<b>Student Headcount &amp; Credit Hours</b>						
	<b>Headcount</b>		<b>Credit Hours</b>		<b>Avg Credit Hours</b>	
	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>	<b>2011</b>
Student Level						
Undergraduate Totals	2,674	3,290	10,105	12,934	3.8	3.9
Graduate Totals	1,829	1,955	7,131	7,522.5	3.9	3.8
Professional Totals	6	6	25	23	4.2	3.8
<b>Grand Total</b>	<b>4,509</b>	<b>5,251</b>	<b>17,261</b>	<b>20,479.5</b>	<b>3.6</b>	<b>3.8</b>



### *Projected Enrollment over the Next Five Years*

The university experienced a slight decline in enrollment in the fall of 2011, and expects to see a minor decline over the next years for multiple reasons. These factors include a change in Michigan demographics, a better selection pool, affordability and financial aid availability. To mitigate declining enrollment and to increase overall graduation rates, Wayne State has initiated the Aim Higher for Student campaign to raise much needed support for scholarships and other opportunities such as internships that have the potential to change lives. The overall purpose of Aim Higher for Students is to empower students to stay in school and graduate as informed global citizens concerned about and prepared to make their mark in our shared world. Aim Higher for Students will increase Wayne State's ability to fund both need-based and merit-based scholarships, as well as other student opportunities through internships and service-learning. The goal is to increase annual scholarships and new endowed funds, creating resources that will have a significant and direct impact on Wayne State students. The campaign has raised more than \$11 million in support of scholarships and other direct student aid.

Wayne State launched the Aim Higher for Students campaign in January 2009 to raise funds for scholarships and other educational resources with a goal to make college more affordable. Currently, 82 percent of Wayne State's undergraduate students rely on financial assistance to help cover their educational expenses, including work-study, grants, scholarships and loans. Yet even with assistance, the average debt load of a WSU graduate is approximately \$20,000.

### *Student-to-Faculty Ratios*

The total estimated faculty headcount (full and part-time, instruction and research) for Fall 2011 is 2,879. Total student enrollment (not including the graduate medical education students) for Fall 2011 was 30,764. The corresponding ratio of student to faculty is 11:1.

### *Current Class Size*

Class size varies depending on the program and class level. Nonlecture classes have an average of 10 students and lecture classes have approximately 23 students. Graduate classes and Honors classes tend to be smaller, with an average of 17 students. Science programs tend to have the largest class sizes.

## **IV. Facilities Assessment**

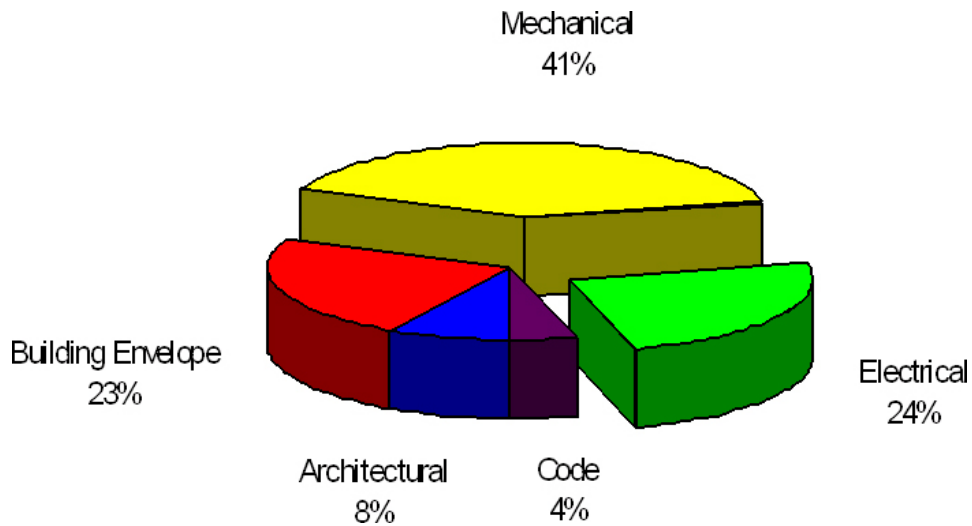
### *Functionality of Existing Structures and Space Allocations to Programs, Deferred Maintenance and Facilities Condition, Current Replacement Value*

Over the years, Wayne State University has used a number of methods to estimate and quantify its deferred maintenance backlog for buildings. Approximately ten years ago, the university commissioned an evaluation of its major research buildings and programs to facilitate the development of capital investment and program expansion priorities. The study included scope to conduct detailed facility assessments for 16 of its primary research buildings. Results from that study indicated that these 16 major research buildings had a deferred maintenance backlog of \$139,600,000. During 2002, the university conducted assessments of 12 non-research buildings, which concluded that the overall condition of several of these buildings is poor. In November 2009, another detailed facilities condition assessment was completed for the university's six parking structures. That study identified just over \$40,000,000 in significant deferred maintenance issues.

Beyond these building investigations, the university has commissioned single building studies that produced the Manoogian Building Condition Analysis, and the Student Center Building Assessment of Existing Conditions. The university also commissioned or conducted studies on individual building systems that resulted in the Chiller Replacement Master Plan and the Roof Condition Report. A deferred maintenance analysis also was completed on the university's housing facilities. Each of these studies helped establish capital outlay plans and a realistic estimate of the university's deferred maintenance backlog.

For FY12, Wayne State University estimates its total deferred maintenance backlog at approximately \$355 million, with a current replacement value (CRV) of \$2.2 billion. (See Appendix II for an individual listing of buildings.) The university's current facilities condition index (FCI) is 15 percent, and in many individual buildings the FCI is higher. One-third of the university's inventory has critically high deferred maintenance backlogs, with FCIs of 30 percent or higher. This draws attention to the importance of addressing these issues in the university's aging structures since their average age is over 55 years. Analysis of the deferred maintenance backlog by building system indicates that 65 percent of the university's building deficiencies are isolated to mechanical and electrical systems as shown in Figure 5 below. This conclusion is supported by the fact that 65 percent of the university's 112 buildings are more than 40 years old, eight of which are over 100 years old.

Figure 5



*Utility Systems, Infrastructure and Adequacy*

As noted above, building utility systems (mechanical, plumbing, electrical and technological) represent a large percentage of the university's deferred maintenance backlog. This Five-Year Capital Outlay Plan includes six major renovations. Collectively, these buildings represent 1,437,456 gross square feet of space; have a CRV of \$202 million and a deferred maintenance backlog of \$77.6 million. Figure 6 lists these aging facilities and summarizes their condition.

Figure 6

BUILDING NAME	BLDG AGE	FY2011 AREA (GSF)	CRV /GSF	ADJUSTED FY2011 CRV	FY2011 Deferred Maintenance	FCI
Chatsworth Apartment	82	125,295	\$207	\$25,936,065	\$7,780,820	30%
DeRoy Apartment	36	207,322	\$190	\$39,391,180	\$11,727,984	30%
Hilberry Theater	89	46,347	\$328	\$15,201,816	\$5,330,635	35%
Parking Structure #1	44	674,202	\$47	\$31,687,494	\$17,500,000	55%
State Hall	62	163,587	\$240	\$39,260,880	19,583,795	50%
Student Center Building	41	220,703	\$232	\$51,203,096	\$15,671,832	31%
<b>Grand Total</b>		<b>1,437,456</b>		<b>\$202,680,531</b>	<b>\$77,595,066</b>	<b>38%</b>

Wayne State University has partially addressed the unreliable public utility electrical infrastructure by installing back-up power generation stations. Four stations were constructed in 2006 to support research-intensive facilities. During 2012, the university plans to install a new back-up generator station to fully support its main Data Center. This need has become urgent due to the frequency and duration of major Detroit Public Lighting Department (PLD) power outages experienced last summer. Recurring problems with electrical reliability have the university reevaluating related vulnerabilities that will likely impact capital priorities during the next several years.

The university's infrastructures of roads, pedestrian walkways and site lighting are in fair overall condition. The university continues to make investments to maintain and improve these assets. Ongoing maintenance by the parking department continues to improve the surface parking lots on campus, including new asphalt and concrete surfaces, better lighting, additional surface water drainage, and new control equipment. However, this Five-Year Capital Outlay Plan has been updated to reflect major structural repair needs in parking structures that were identified in the 2009 condition assessment study.

### *Strategic Energy Plan*

In response to an environmental sustainability initiative, during 2008 the university developed its current Strategic Energy Plan which is based on three parts; energy procurement, energy production, and energy conservation. Presently cost effective procurement contracts are in place for electricity with Detroit Edison and Detroit Public Lighting Department, each of whom serve approximate half of the campus. All natural gas is purchased through a consortium with the State of Michigan. Water and sewer services are purchased from the City of Detroit.

The university self-generates all of its steam used for heating or cooling. In two limited cases, Detroit Thermal serves as a back-up only. Wayne State has always generated its own chilled water for comfort and process cooling. Because we do not have the land resources for a central heating and cooling plant, there are many small individual plants serving single or small groupings of buildings across campus. When individual plants require replacement or refurbishment, each is evaluated on a case by case basis to determine the most appropriate and economically justifiable approach for the future.

With respect to energy consumption or conservation, the university has implemented many energy conservation measures (ECM's) over the years. Energy audits were recently completed at a select group of high energy intense buildings. Each energy conservation measure identified was ranked

according to their capital investment requirement and payback potential. Approximately \$1.2 million has been allocated to implement several lighting ECM's, and occupancy sensors will be incorporated with many of these installations. Two other ECM's are repairing compressed air leaks and calibration of pneumatic thermostats. The payback period for each project is less than two years. The university is also developing an energy performance contracting project with Siemens Building Technologies that is currently evaluating conservation and cost reduction opportunities in 14 different buildings. Each building was selected for investigation based on the energy consumption intensity that it represents. It is hoped that this initiative will result in the implementation of projects saving between \$1.5 and \$2.0 million in annual costs.

Another element of the energy plan is retro-commissioning of existing buildings. This process has been completed at one research building that has a high energy intensity rating. A second research building is now being addressed.

### *Facilities and Land Use*

The overall distribution of academic/research space is expected to change during the next 15 years. For example, a relatively larger share of the university's physical plant will be dedicated to research, as Wayne State strengthens its research activities. Academic and research uses make up the dominant share, now 4.3 million GSF, an increase of 300,000 GSF over the last seven years. Included in this designation are classrooms, lecture halls, laboratories, and a significant portion of faculty and graduate student offices. While academic and research definitions may overlap, these two broad classifications are roughly equal in scope. Distance learning will further redefine and shape future classroom space allocations and development.

In FY2012, Wayne State owned and operated 112 buildings comprising 11,224,536 gross square feet of space. The expansion of the A. Paul Schaap Chemistry Building, the Damon J. Keith Center for Civil Rights, and the Multi-purpose Indoor Facility at the athletic complex were each opened in 2011. The university leases space in 26 additional buildings that total 716,308 gross square feet. Collectively, the university delivers its various programs from 138 buildings with a total of 11,940,844 gross square feet. The university owns approximately 210 acres of land spread over its main campus, adjacent athletic and medical campuses, and extension centers.

Within the timeframe of the 2020 Campus Master Plan, which was completed in 2000, the university seeks to develop additional gross square feet of space to expand many of its programs. Most of this additional space will be

delivered to three major elements of the facilities portfolio, expanding the residential program, growing research and academic programs, and new parking structures.

The university plans to accomplish this expansion primarily on land it now owns. As this occurs, the floor-area ratio will increase from 1.06 to 1.60. Earlier land use evaluations concluded that a floor-area ratio of 2.0 to 2.25 was achievable and would not be detrimental to the campus or adjacent neighborhoods in terms of overall bulk or massing of the facilities. Planned development will preserve ample mall and green space for the community. When fully realized, Campus Master Plan projects will have a negligible impact on open space, as planned demolitions and the re-use of surface parking lots will accommodate most new construction.

### *Building and Classroom Utilization Rates*

The university's commitment to the diversity of its student body and its urban mission are reflected in its academic programs and class scheduling. To accommodate the needs of the large number of students who work during the day, many courses are scheduled in late afternoon or evening. According to the Office of Institutional Research, 34 percent of all courses are scheduled after 4 p.m. While most courses are offered on the university's main campus, many are offered at six extension centers.

### *Mandatory Facilities Standards*

As a "Carnegie Research University, Very High Activity" institution, Wayne State complies with required facilities standards.

- Animal research facilities are distributed throughout the main and medical campus buildings. Facility standards for laboratory research animals are rigorous and regulated by the national accrediting agency, the Assessment and Accrediting of Laboratory Animal Care.
- The university's offices of Environmental Health and Safety and Health Physics and Radiation Control are responsible for the collection, short-term storage and disposition of hazardous waste materials. These activities are regulated nationally by the Environmental Protection Agency and locally by the State Department of Environmental Quality.
- Chemical and biological laboratories that contain fume hoods and store chemicals and/or reagents are spread throughout the main and medical campuses. These facilities are regulated by Occupational Safety and Health Administration standards (OSHA).

- Specialized facilities such as laser laboratories, large testing equipment and laboratories, and biohazard laboratories exist in the colleges of Liberal Arts and Sciences, Engineering, the Eugene Applebaum College of Pharmacy and Health Sciences, and the School of Medicine. These laboratories have special OSHA regulations and requirements and often need significant modification to the buildings and utility systems.
- The clinical behavioral science laboratories used for conducting research on human subjects are regulated by the National Institutes of Health. The university's Institutional Review Board is responsible for implementing these regulations.

### *Utilization*

The university reports that many buildings, including general academic and administration buildings, are used heavily from 8 a.m. to 10 p.m. Monday through Friday, and from 8:00 a.m. to 4 p.m. Saturday. Many research buildings are subject to operation 24 hours per day, seven days a week, 365 days a year. Room Scheduling and the Registrar's Office are implementing anew room scheduling software that will capture room use rates. When the database is populated, more specific details regarding such rates will be provided.

### *Bond Status*

The university has five building projects with obligations to the State Building Authority.

<b><u>Building</u></b>	<b><u>Lease Began</u></b>	<b><u>Lease Ends</u></b>
Old Main Renovation	November 1997	2032
Undergraduate Library	February 1998	2033
Pharmacy and Health Sciences	September 2002	2037
Welcome Center	December 2002	2037
Engineering Development Center	December 2009	2044

## **V. Implementation Plan**

Throughout this document, Wayne State University has presented comprehensive information regarding its capital project plans. The Five-Year Capital Outlay Plan continues to present the Multidisciplinary Biomedical Research Building as the top priority for State Capital Outlay support as well as projects the university plans to deliver by way of various other funding sources. With the exception of the MBRB, the following are descriptions of all major projects included in this Plan. As steps are taken during the next 12 months to move projects and fundraising efforts forward, the outcomes will likely cause modifications to current plans.

### *State Capital Outlay Project*

The Multidisciplinary Biomedical Research Building (\$90,400,000) continues to be Wayne State University's number one State capital outlay priority. The university has just submitted its Program Statement and Schematic Design for the project to the State for review and approval. Wayne State University continues to request State capital outlay funding support for \$30 million which was conditionally committed last year to support the design and construction of the MBRB project. This value represents a third of the \$90.4 million necessary to develop the MBRB. The university will provide the remaining funds through the issuance of general revenue bonds which the Board of Governors have committed to selling to support the implementation of this critical project.

### *Non-State Capital Outlay Projects*

The Chatsworth Apartment Renovation (\$20,000,000) project will address upgrades to the mechanical, plumbing, telephone, data, electrical and fire protection infrastructures as well as architectural finishes. Plumbing fixtures will be replaced, as will the building's original windows with new energy-efficient units. Recent investments in the building modernized the elevator and installed a steam plant that enables Chatsworth, DeRoy and the Student Center Building to take advantage of self-generated steam, removing dependence upon expensive district steam. Auxiliary funds will be used to support the bonded debt.

Classroom Improvement Projects (\$25,000,000) continue to upgrade the university's aging stock of classrooms on campus. Buildings needing additional attention are Old Main, Manoogian, Shapero and Science Hall. In previous years, the university allocated funds to address a multitude of issues in these buildings. To varying degrees, these projects will continue implementing upgrades to the interior finishes and mechanical, electrical, life safety and technology systems. The focus will be on restoring significant



general purpose classroom buildings to excellence. The university will allocate general fund and capital campaign resources to this project.

The DeRoy Apartment Renovation (\$20,000,000) will address upgrades to the mechanical, electrical, plumbing and fire protection infrastructures and architectural finishes. Auxiliary funds will be used to support the bonded debt.

The Hilberry Expansion and Renovation (\$30,000,000) will provide the opportunity consolidate and significantly improve various theater, dance and related production activities in new and renovated space.

The Interdisciplinary Science Research Building (\$110,000,000) will house researchers from diverse disciplines on the main campus. The facility will contain wet laboratories designed to promote interaction among investigators. Research performed here also will support Michigan's life sciences industry and allow for greater diversification of the Michigan workforce.

Parking Structure #1 Structural Repairs (\$17,500,000) is a continuation of two phases of previous work to implement major structural repairs. Upgrades to the security systems will also be addressed. The university will use auxiliary funds for this work.

Other Parking Improvement Projects (\$10,000,000) will address general improvements in other university parking structures and various surface lots. The university will use auxiliary funds for this work.

The Research Building for Cancer Programs (\$45,000,000) is under consideration due to the growing number of performance problems and use issues with the existing building. Significant mechanical system deficiencies, coupled with increasing electrical problems are causing negative consequences to valuable cancer research programs. The building's masonry exterior is showing serious distress, causing concerns of pending water infiltration problems. And, most laboratory equipment and casework is worn out due to extensive use over time.

The State Hall Classroom Building Renovation (\$45,000,000) will address a portion of the university's aging classroom infrastructure. Constructed in 1948, State Hall is a general purpose classroom building critical to delivering courses for almost every program. This project includes a complete renovation of the facility, updating the balance of the finishes and technology in those spaces not renovated in 2008, replacing failing mechanical and electrical systems, and addressing ADA issues.

The Student Center Building Renovation (\$15,000,000) will renovate the existing structure which is in need of life safety system upgrades by expanding and upgrading the fire suppression system and replacing the fire alarm system. The plumbing infrastructure will be replaced to provide new piping for the domestic hot water supplies and ADA toilet rooms. Water infiltration issues will be addressed by investigating the problems with the windows. Consideration will be given to updating some spaces to accommodate programs in demand by Wayne State students. The university is considering various funding sources for this project.

University Deferred Maintenance Program (\$40,000,000) is campus-wide initiative includes regular investments in deferred maintenance beyond the projects listed previously. The university is considering various funding sources for this project.

#### *Under Construction*

With the completion of the A. Paul Schaap Chemistry Building Renovation and Expansion, the Damon J. Keith Center for Civil Rights, and the Multi-purpose Indoor Building, the university presently has no new construction in progress at this time. However, there are many, many small renovation projects actively being implemented.

#### *Status of Ongoing SBA Funded Projects*

Wayne State University does not have any active SBA funded projects at this time.

WAYNE STATE UNIVERSITY  
 FY 2013 CAPITAL OUTLAY PROJECT REQUEST

**MULTIDISCIPLINARY BIOMEDICAL RESEARCH BUILDING**  
 TOTAL COST: \$90,400,000

<i>Is The Project a Renovation or New Construction?</i>	Both
<i>Is a 5-Year Master Plan Available?</i>	Yes
<i>Are Professionally Developed Program Statements and/or Schematics Available?</i>	Yes
<i>Are Required Match Resources Available?</i>	Yes
<i>Has the University Identified Available Operating Funds?</i>	Yes

A. Project Description Narrative

Wayne State University continues to request State of Michigan Capital Outlay funding support for the Multidisciplinary Biomedical Research Building. The project program of detailed space requirements and the schematic design have been submitted for State review and acceptance. The university now requests authorization to proceed with the final design and construction for a total project budget of \$90.4 million, and with the State's funding contribution of \$30.0 million.

The MBRB has been WSU's priority one project submitted for Capital Outlay consideration since FY 2009, as a new research facility is critical to enabling WSU to participate in the National Institutes of Health (NIH) Clinical Translational Science Award (CTSA) funding and initiatives. Last year (FY 2012 funding cycle), WSU proposed to develop a new 400,000 square foot facility in partnership with Henry Ford Health System (HFHS) at a total cost of approximately \$230 million. The building was to be constructed near the main HFHS hospital in Mid-town Detroit with approximately equal participation (both in terms of cost and square footage allocation) by both partners. WSU requested \$90 million in Capital Outlay funding to partially cover its portion of the costs of the MBRB project, and in December, 2010, was conditionally awarded \$30 million by the State of Michigan and was authorized to proceed with final programming and schematic design in accordance with State project development guidelines.

HFHS notified WSU in late August of 2011 that it was necessary to significantly reduce the level of their participation in the MBRB project due to capital budget constraints and conflicting priorities during the next 3-5 years. Accordingly, the project details included in the submitted schematic design represent a smaller building with limited participation by HFHS. In

this regard, the MBRB is currently planned to be approximately 196,500 gross square feet in size, at a total cost of \$90.4; with about 93% of the facility to be occupied by WSU. The current size and scope of the project will provide enough laboratory space for WSU to support 48 principal investigators (compared with 55 assumed in the project plan submitted last year), and for HFHS to have enough of a presence in the new facility to still leverage the collective and compatible research strengths of both organizations.

The project scope includes plans to renovate and re-purpose approximately 127,700 gross square feet of existing space in the former 1927 Dalglish Cadillac dealership building designed by famed architect Albert Kahn, and construct an additional 78,000 gross square feet of new companion building fronting Woodward Avenue. The project represents an innovative opportunity to redevelop an entire 2.75 acre city block that is currently vacant real estate, further contributing to the economic revitalization of the immediate neighborhood and Mid-town Detroit. In addition, there is sufficient adjoining space in this block (which is located in TechTown, WSU's Research and Technology Park, and just 2 blocks from HFHS's corporate headquarters) to support a phase II of this project which may be undertaken with more significant participation of HFHS in 3-5 years.

We believe the potential health care delivery benefits resulting from MBRB research discoveries translated from the bench to bedside justify the investment the State of Michigan and Wayne State University will make in this project. The ability to progress these outcomes in partnership with Henry Ford Health System both now, and more significantly in the future enriches the potential derivatives of this investment; and building the MBRB in TechTown, where minds and means commercialize laboratory discovery into employment, makes this project proposal even more compelling. With the funding support from the State of Michigan granted in 2010, WSU will make the MBRB and its entire attendant benefits a reality by the end of 2014.

The university proposes the following schedule:

Authorization for Planning and Schematic Design	December 2010
Submit Final Program Plan and Schematic Design	November 2011
Authorization for Final Design and Construction	May 2012
Final Design Complete	
Interior Demolition and Site Prep	September 2012
Site Utilities, Foundations, Structure	November 2012
Core and Shell	February 2013
Long Lead Equipment and MEP Systems	March 2013
Interior Construction and Site Restoration	April 2013
Start Construction	December 2012
Complete Construction	December 2014

The university anticipates the annual operating cost for this building to be approximately \$2.0 million.

#### B. Other Alternatives Considered

As noted, previous project requests for the MBRB always intended to only have Wayne State University research activities conducted from the completed project. When this was the case, other alternatives considered to advance the university's efforts in clinical translational research were doing nothing to enhance facility resources; renovating Scott Hall, the university's primary School of Medicine research building; and demolition and replacement of Scott Hall with a larger building. Each of these options was discounted as infeasible for the following reasons.

- While there are a number of ongoing research initiatives that are directly associated with the NIH-CTSA program, goals regarding the magnitude of research volume expansion far exceed the availability of existing space throughout the university's portfolio of existing research buildings. The university simply does not have physical space to accomplish the level of growth anticipated with these programs.
- Even if ample space was available, the physical limitations of several research buildings are too constraining and costly to adapt. The renovation of Scott Hall was seriously evaluated. Because of its inadequate laboratory infrastructure, inflexible concrete configurations, lack of options to locate sensitive scientific instruments, and core research facilities, substantial gut-renovations would be necessary to

provide acceptable space, and at a huge capital cost. While more efficient available net usable square footage would result, the gains would not be enough to satisfy planned space requirements. When coupled with impacts caused by relocating ongoing research to temporary swing space, this alternative was judged as unacceptable.

- Scott Hall is a nine-story, 500,000 square foot building serving multiple use purposes for the School of Medicine. Over half is dedicated directly to research laboratories; the balance provides space for instruction, administrative and faculty offices, student services and a vivarium. It could be demolished and replaced with a larger structure. However, for the same reasons stated above and due to cost, this option does not make any economic sense, especially when considering that a smaller standalone structure dedicated to the proposed clinical translational programs could be constructed on available university land at a lesser expense.

When Wayne State and Henry Ford Health System began discussions to explore the possibility of combining compatible program components focused on translational research activities that would expedite the movement of laboratory discovery through clinical trials and to the patient bed-side, the same basic options were investigated, but from within HFHS facility resources and at a larger scale. These evaluations produced the same conclusions. HFHS does not have the necessary existing space, the cost of renovation would be extremely high and not produce ample space gained by more efficient use of existing space, and the disruption to existing operations would be enormous. For these various reasons, the university proposed developing the MBRB with Henry Ford Health System as a 400,000 gross square foot building with a total project budget of \$230 million in its FY12 Capital Outlay request.

Because it has become necessary to scale back on HFHS's participation in the short-term, and due to continued strong interest to expand joint research relationships in the future through a phase two project, the final program plan and schematic design locates the project on Woodward Avenue, in TechTown, within two blocks of HFHS's corporate headquarters.

### C. Programmatic and Economic Benefit to the State and Students Served

In addition to the advances in healthcare outcomes that are expected from the planned project, its construction and programs will produce other important positive economic impacts for Detroit and Michigan. During design and construction upwards to 1,000 single-year-duration jobs will be

created. Both State and City tax revenues will be increased by this construction spending. Following construction, the university will spend an estimated \$25.0 million on equipment to support the research investigations associated with new private investigator teams it expects to hire. Once fully operational, the MBRB will create approximately 375 new scientific and support jobs, and will spark an estimated 300 additional jobs in the State. Following the phase-in period, MBRB operations will result in new earnings of roughly \$40 million annually in Michigan, 98 percent of which will be in metropolitan Detroit which would contribute to sustained increases to the state and city tax revenues.

D. Funding Resources

Wayne State University requests continued State Capital Outlay support totaling \$30.0 million to proceed with the final design and construction of the MBRB project. Toward the total project cost of \$90.4 million, the university will fund the remaining \$60.4 million, and will be reimbursed an amount yet to be determined from Henry Ford Health System for their portion of the project. The Wayne State University has previously committed to the sale of general revenue bonds up to a total of \$65 million to fund the project.

**Fiscal Year 2011**  
**Current Replacement Values and Deferred Maintenance**  
**Wayne State University**

Bldg Use	Bldg No	Building Name	Year Built	FY 2011 Bldg Age	FY 2011 GSF Area	FY 2011 CRV / GSF	FY 2011 Adjusted CRV	Adjusted Deferred Maintenance	FY 2011 FCI
<b>Academic (Instruction and Research)</b>									
R	637	110 E Warren (Prentis Cancer Center)	1980	31	130,349	\$323	\$42,102,727	\$2,104,297	0.05
R	071	5057 Woodward (Maccabees Building)	1926	85	294,090	\$221	\$64,993,890	\$2,587,470	0.04
R	083	60 W Hancock (ACLU Building)	1956	55	4,735	\$200	\$947,000	\$50,000	0.05
C	074	95 Hancock West	1916	95	23,495	\$190	\$4,464,050	\$222,615	0.05
C	155	Alex Manoogian Hall	1970	41	194,304	\$270	\$52,462,080	\$14,028,292	0.27
C	040	Art Building	1956	55	56,358	\$240	\$13,525,920	\$2,058,179	0.15
R	169	Bioengineering Building	1925	86	46,300	\$285	\$13,195,500	\$2,200,778	0.17
R	089	Biological Sciences Building	1991	20	131,975	\$323	\$42,627,925	\$6,384,291	0.15
C	620	Bonstelle Theatre	1903	108	41,552	\$308	\$12,798,016	\$4,078,188	0.32
R	609	C S Mott Center	1973	38	80,209	\$323	\$25,907,507	\$1,000,000	0.04
R	511	Charles L Freer House (Merrill-Palmer Institute)	1890	121	27,328	\$240	\$6,558,720	\$655,872	0.10
R	007	Chemistry Building	1970	41	227,429	\$323	\$73,459,567	\$19,642,775	0.27
C	140	Education Building	1960	51	106,076	\$275	\$29,170,900	\$1,747,072	0.06
C	038	Emma Lazaroff Schaver Music Building	1955	56	35,901	\$240	\$8,616,240	\$585,484	0.07
R	090	Engineering Building (Engg Dev Cntr)	1951	60	271,031	\$285	\$77,243,835	\$13,677,649	0.18
C	167	Engineering Technology Building	1916	95	26,357	\$262	\$6,905,534	\$456,501	0.07
C	017	Frederick Linsell House	1905	106	6,582	\$217	\$1,428,294	\$57,132	0.04
C	150	General Lectures	1971	40	30,073	\$270	\$8,119,710	\$1,458,841	0.18
R	612	Gordon H Scott Hall, Bsc Med Sci	1971	40	499,672	\$335	\$167,390,120	\$53,550,259	0.32
C	023	Helen L DeRoy Auditorium	1964	47	13,962	\$257	\$3,588,234	\$717,647	0.20
R	611	Helen Vera Prentis Lande Building	1964	47	114,129	\$285	\$32,526,765	\$12,282,711	0.38
C	189	Hilberry Theatre	1921	90	46,347	\$328	\$15,201,816	\$5,330,635	0.35
R	655	Hudson-Webber Cancer Research Center	1998	13	92,192	\$323	\$29,778,016	\$73,812	0.00
C	053	Law Classroom Building	1966	45	17,689	\$270	\$4,776,030	\$953,437	0.20
C	049	Law School Building	2000	11	68,555	\$221	\$15,150,655	\$32,506	0.00
R	068	Leonard N Simons Building	1914	97	54,513	\$212	\$11,556,756	\$922,166	0.08
R	006	Life Science Building	1960	51	59,904	\$323	\$19,348,992	\$13,716,518	0.71
R	629	Louis M Elliman Clinical Research Building	1989	22	98,267	\$335	\$32,919,445	\$2,269,186	0.07



**Fiscal Year 2011**  
**Current Replacement Values and Deferred Maintenance**  
**Wayne State University**

Bldg Use	Bldg No	Building Name	Year Built	FY 2011 Bldg Age	FY 2011 GSF Area	FY 2011 CRV / GSF	FY 2011 Adjusted CRV	Adjusted Deferred Maintenance	FY 2011 FCI
R	166	Manufacturing Engineering Building	1996	15	46,146	\$265	\$12,228,690	\$488,225	0.04
R	608	Medical Education Commons	1970	41	122,000	\$350	\$42,700,000	\$0	0.00
C	022	Meyer and Anna Prentis Building	1964	47	64,536	\$275	\$17,747,400	\$3,543,026	0.20
C	065	Mortuary Science Building	1978	33	38,460	\$295	\$11,345,700	\$323,432	0.03
C	001	Old Main	1896	115	424,325	\$300	\$127,297,500	\$6,340,410	0.05
R	509	Pauline Knapp Building (Merrill-Palmer Institute)	1959	52	43,822	\$228	\$9,991,416	\$2,592,012	0.26
R	603	Pharmacy and Health Sciences Building	2002	9	287,580	\$324	\$93,175,920	\$232,524	0.00
R	003	Physics Building	1965	46	108,767	\$243	\$26,430,381	\$8,704,079	0.33
C	048	Richard Cohn Building	1960	51	89,770	\$252	\$22,622,040	\$1,326,251	0.06
R	005	Science Hall	1949	62	137,342	\$273	\$37,494,366	\$7,859,396	0.21
R	050	Shapero Hall (Natural Science Building)	1965	46	41,182	\$315	\$12,972,330	\$4,913,206	0.38
R	510	Skillman Building (Merrill-Palmer Institute)	1964	47	22,056	\$207	\$4,565,592	\$1,513,576	0.33
C	156	St Andrew's Hall	1902	109	17,840	\$192	\$3,425,280	\$1,209,062	0.35
C	016	State Hall	1948	63	163,587	\$240	\$39,260,880	\$19,583,795	0.50
C	504	Thompson Home	1890	121	32,043	\$228	\$7,305,804	\$1,142,915	0.16
C	028	William C Rands House	1913	98	19,641	\$245	\$4,812,045	\$223,281	0.05
C	525	WSU Oakland Center	1982	29	99,946	\$207	\$20,688,822	\$1,050,898	0.05
		<b>Academic Total</b>			<b>4,558,417</b>		<b>\$1,310,828,410</b>	<b>\$223,890,401</b>	

**Fiscal Year 2011**  
**Current Replacement Values and Deferred Maintenance**  
**Wayne State University**

Bldg Use	Bldg No	Building Name	Year Built	FY 2011 Bldg Age	FY 2011 GSF Area	FY 2011 CRV / GSF	FY 2011 Adjusted CRV	Adjusted Deferred Maintenance	FY 2011 FCI
<b>Academic Leased (Instruction, Research and Administration)</b>									
A	548	24601 Northwestern							
R	384	2761 Jefferson East	1921	90	26,237				
A	594	3750 Woodward							
R	606	3800 Woodward			7,103				
R	621	Carl's Building (Children's Hospital)	1967	44	2,038				
R	621	Children's Hospital of Michigan	1967	44	4,466				
R	624	Detroit Receiving Hospital			3,677				
R	619	Gershenson Radiation Oncology Center (KCI)			2,884				
R	634	Harper Hospital Professional Building			4,855				
R	618	Harper University Hospital	1884	127	15,102				
C	542	Harper Woods Center							
U	499	Horace H Rackham Educ Mem Bldg	1941	70	128,285				
R	623	Hutzel Hospital	1900	111	39,325				
R	597	Hutzel Hospital (Harper Univ Hosp)	1884	127					
R	635	Kresge Eye Institute (Hutzel Hospital)			67,946				
C	591	Macomb Education Center	1979	32	29,000				
A	489	Medical Lofts (Human / Animal Research Comp)							
R	992	Metropolitan Center for High Technology	1930	81	120,300				
R	212	NextEnergy (TechTown)			2,554				
P	498	Parking Structure #3 (Rackham Parking)	1977	34	125,133				
R	209	TechOne (TechTown)			5,785				
C	596	University Center - Macomb							
R	614	University Health Center			61,306				
R	385	University Square Office Plaza	1951	60	57,540				
C	563	WSU Advanced Technology Education Center							
A	585	Woodward Gardens (Fam Med / Pub Hlth Sci)			12,772				
		<b>Academic Leased Total</b>			<b>716,308</b>		<b>\$0</b>	<b>\$0</b>	

**Fiscal Year 2011**  
**Current Replacement Values and Deferred Maintenance**  
**Wayne State University**

Bldg Use	Bldg No	Building Name	Year Built	FY 2011 Bldg Age	FY 2011 GSF Area	FY 2011 CRV / GSF	FY 2011 Adjusted CRV	Adjusted Deferred Maintenance	FY 2011 FCI
<b>Administration - Support</b>									
A	191	100 Antoinette	1921	90	15,036	\$138	\$2,074,968	\$650,953	0.31
A	527	1011 East Ferry Avenue	1963	48	12,810	\$268	\$3,433,080	\$500,000	0.15
A	086	39 West Warren (Subway Shop)	1955	56	2,027	\$117	\$237,159	\$25,000	0.11
A	087	5050 Cass (Parking Structure #6 Retail Unit)	2003	8	4,711	\$28	\$131,908	\$0	0.00
A	067	5425 Woodward	1958	53	49,233	\$215	\$10,585,095	\$3,305,306	0.31
A	066	5435 Woodward	1928	83	27,409	\$205	\$5,618,845	\$3,322,593	0.59
A	141	5900 Second (Music North)	1949	62	23,535	\$190	\$4,471,650	\$1,070,372	0.24
A	207	5957 Woodward (C&IT Annex)	2000	11	2,095	\$68	\$142,460	\$3,544	0.02
A	202	6000 Cass (Westinghouse Building)	1926	85	4,000	\$139	\$556,000	\$139,000	0.25
A	203	6050 Cass (WSU Police Department)	1926	85	36,787	\$177	\$6,511,299	\$0	0.00
A	062	Academic / Administrative Building	1995	16	135,161	\$197	\$26,626,717	\$1,859,140	0.07
A	042	Alumni House	1959	52	16,047	\$202	\$3,241,494	\$48,622	0.01
A	064	Beecher House	1909	102	19,460	\$273	\$5,312,580	\$375,243	0.07
A	085	Bookstore	2002	9	29,450	\$237	\$6,979,650	\$17,449	0.00
A	503	CIT Building	1939	72	24,369	\$227	\$5,531,763	\$55,318	0.01
A	039	Community Arts Center	1956	55	52,560	\$205	\$10,774,800	\$324,413	0.03
A	193	Computing Services Center	1915	96	57,738	\$215	\$12,413,670	\$46,817	0.00
A	188	David Mackenzie House	1920	91	6,954	\$240	\$1,668,960	\$534,067	0.32
A	130	Faculty / Administration Building	1990	21	158,026	\$197	\$31,131,122	\$621,184	0.02
A	033	Max Jacob House	1914	97	8,216	\$303	\$2,489,448	\$24,894	0.01
A	043	McGregor Memorial Conference Center	1958	53	29,915	\$306	\$9,153,990	\$250,000	0.03
A	034	Student Center Building	1969	42	220,703	\$232	\$51,203,096	\$15,671,832	0.31
A	195	University Custodial / Grounds Building	1930	81	35,123	\$144	\$5,057,712	\$404,617	0.08
A	060	University Services Building	1930	81	97,291	\$144	\$14,009,904	\$3,222,278	0.23
A	082	Welcome Center	2002	9	67,543	\$272	\$18,371,696	\$45,929	0.00
A	501	WDET Transmitter	1996	15	1,883	\$788	\$1,483,804	\$192,772	0.13
		<b>Administration - Support Total</b>			<b>1,138,082</b>		<b>\$239,212,870</b>	<b>\$32,711,343</b>	

**Fiscal Year 2011**  
**Current Replacement Values and Deferred Maintenance**  
**Wayne State University**

Bldg Use	Bldg No	Building Name	Year Built	FY 2011 Bldg Age	FY 2011 GSF Area	FY 2011 CRV / GSF	FY 2011 Adjusted CRV	Adjusted Deferred Maintenance	FY 2011 FCI
<b>Athletics and Recreation</b>									
F	080	Matthaei Physical Education Center	1967	44	159,108	\$215	\$34,208,220	\$2,318,211	0.07
F	025	Recreation and Fitness Center	2000	11	79,723	\$212	\$16,901,276	\$38,665	0.00
F	078	Stadium Auxiliary Building	1968	43	10,011	\$144	\$1,441,584	\$57,663	0.04
F	079	Wayne State Stadium	1968	43	24,456	\$63	\$1,540,728	\$61,629	0.04
<b>Athletics and Recreation Total</b>					<b>273,298</b>		<b>\$54,091,808</b>	<b>\$2,476,168</b>	
<b>Housing</b>									
H	137	Chatsworth Tower Apartments	1928	83	125,295	\$207	\$25,936,065	\$7,780,820	0.30
H	134	Helen L DeRoy Apartments	1974	37	207,322	\$190	\$39,391,180	\$11,727,984	0.30
H	104	Leon H Atchison Residence Hall	2003	8	121,275	\$165	\$20,010,375	\$49,874	0.00
H	127	Towers Residence Hall	2005	6	305,457	\$185	\$56,509,545	\$250,000	0.00
H	507	University Tower	1996	15	357,393	\$202	\$72,193,386	\$2,154,469	0.03
H	115	Yousif B Ghafari Hall	2002	9	112,134	\$181	\$20,296,254	\$50,600	0.00
<b>Housing Total</b>					<b>1,228,876</b>		<b>\$234,336,805</b>	<b>\$22,013,747</b>	
<b>Library</b>									
L	096	David Adamany Undergraduate Library	1997	14	313,861	\$209	\$65,596,949	\$655,969	0.01
L	026	G Flint Purdy Library	1955	56	163,876	\$215	\$35,233,340	\$8,728,541	0.25
L	027	Kresge Library	1952	59	68,106	\$215	\$14,642,790	\$1,753,048	0.12
L	046	Law Library Building	1966	45	87,336	\$230	\$20,087,280	\$590,347	0.03
L	008	Science and Engineering Library	1970	41	114,428	\$242	\$27,691,576	\$3,046,073	0.11
L	036	Walter P Reuther Library, Lbr & Urb Affs	1974	37	73,955	\$230	\$17,009,650	\$1,018,360	0.06
<b>Library Total</b>					<b>821,562</b>		<b>\$180,261,585</b>	<b>\$15,792,338</b>	

**Fiscal Year 2011**  
**Current Replacement Values and Deferred Maintenance**  
**Wayne State University**

Bldg Use	Bldg No	Building Name	Year Built	FY 2011 Bldg Age	FY 2011 GSF Area	FY 2011 CRV / GSF	FY 2011 Adjusted CRV	Adjusted Deferred Maintenance	FY 2011 FCI
<b>Parking Structure</b>									
P	051	Parking Structure #1	1966	45	674,202	\$47	\$31,687,494	\$17,500,000	0.55
P	056	Parking Structure #2	1972	39	594,017	\$47	\$27,918,799	\$4,465,000	0.16
P	613	Parking Structure #4	1978	33	375,067	\$47	\$17,628,149	\$1,075,000	0.06
P	045	Parking Structure #5	1987	24	321,466	\$47	\$15,108,902	\$1,475,000	0.10
P	088	Parking Structure #6	2001	10	204,376	\$51	\$10,423,176	\$1,100,000	0.11
P	595	Parking Structure #7	2003	8	308,482	\$51	\$15,732,582	\$50,000	0.00
P	536	Parking Structure #8	2008	3	309,904	\$51	\$15,805,104	\$50,000	0.00
<b>Parking Structure Total</b>					<b>2,787,514</b>		<b>\$134,304,206</b>	<b>\$25,715,000</b>	
<b>Underutilized / Vacant</b>									
U	217	1200 Holden Avenue	1969	42	52,896	\$150	\$7,934,400	\$1,000,000	0.13
U	556	14601 East Twelve Mile Road	1975	36	39,552	\$150	\$5,932,800	\$1,500,000	0.25
U	070	5033 Woodward (Marie F Donaldson House)	1889	122	17,761	\$258	\$4,582,338	\$1,680,200	0.37
U	041	5415 Cass (Music Annex)	1916	95	10,042	\$240	\$2,410,080	\$1,341,120	0.56
U	199	5959 Woodward	1950	61	6,045	\$172	\$1,039,740	\$850,108	0.82
U	196	6001 Cass (Criminal Justice Building)	1921	90	147,260	\$202	\$29,746,520	\$11,303,678	0.38
U	204	6110 Cass (American Beauty Electric Iron)	1920	91	83,300	\$164	\$13,661,200	\$11,612,020	0.85
U	211	6160 Cass (Dalgleish Dealership Property)	1927	84	112,827	\$150	\$16,924,050	\$6,000,000	0.35
<b>Underutilized / Vacant Total</b>					<b>416,787</b>		<b>\$51,439,878</b>	<b>\$32,787,126</b>	
<b>Grand Total</b>					<b>\$11,940,844</b>		<b>\$2,204,475,562</b>	<b>\$355,386,123</b>	