

# Northern Michigan University



Facilities Five Year Master Plan  
December 2008

# Northern Michigan University

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Northern Michigan University

# Section I Mission

*Five Year Capital Outlay Plan*

# Northern Michigan University

## Mission Statement

*Northern Michigan University challenges its students and employees to think independently and critically, develop lifelong learning habits, acquire career skills, embrace diversity and become productive citizens in the regional and global community.*

September 2008

## Vision Statement

*Northern Michigan University will be the public university of choice where students will find quality academic programs, a superior college experience with personal attention in a high-tech learning environment.*



*Five Year Capital Outlay Plan*

Northern Michigan University

# Section II

# Instructional

# Programming

*Five Year Capital Outlay Plan*

# Northern Michigan University

## Strategic Direction: Road Map to 2015

NMU's success has enabled us to understand more fully the strengths and distinctive features that will define NMU's future. The heritage of being a high-touch, high-tech, high-quality campus that is both affordable and accessible must remain an important part of our value system. In order to sustain our uniqueness and differentiate NMU from other universities, we must be clear about our priorities and direction. Three unique themes will frame our Road Map to 2015 and beyond.

**Information technologies** are the critical signature of an NMU degree. The laptop culture, enhanced by new wireless technologies and portable devices, places NMU far ahead of and distinct from our competitors. Our capability to blend this expertise with digital television and public broadcasting increases both the capacity and the quality of NMU. Our instructional and technical reach becomes planetary rather than regional.

**International opportunities** also will become a critical feature for NMU. Students demand it, employers seek it, and a relevant education cannot exclude it. Beyond study abroad, our curriculum, our faculty, our student body, and our thinking must reflect the realities of an interconnected, world community. We are in a unique position to distinguish all NMU majors with significant and meaningful international experiences.

**NMU's location** in the Upper Peninsula is a unique asset and, as one, must become a prominent feature of our portfolio of academic programs and our research agenda. Lake Superior and the neighboring landscapes offer resources that attract students, faculty, and staff and enhance a high-quality university experience. How we choose to brand and distinguish our degrees will depend in large part upon our creative use of this most prominent resource.

Against these three distinctive brushstrokes lie specific strategies that are the foundation of the Road Map to 2015 and Beyond. The Road Map is comprised of four broad elements that each have specific goals and priorities. Each is relevant to faculty, staff, and students' sense of engagement with the campus; with who we are and where we're going. More importantly, the Road Map will capture how we're going to get there.

*Five Year Capital Outlay Plan*

# Northern Michigan University

## Strategic Direction: Road Map to 2015 *(continued)*

The Four Strategic Elements are:

### Innovation:

The university experience is predicated on a blend of a number of intellectual and organizational enterprises. Northern must reinvigorate the standards and processes that will sustain successful programs, create new ones, eliminate programs with declining enrollment, and reflect the creativity of campus talents. The curriculum must remain relevant and meaningful, and our teaching must be contemporary and effective.

- An academic curriculum that balances successful programs with new offerings at the undergraduate and graduate level to meet the needs of students, as well as improve student career opportunities after graduation
- A new professional development program for faculty and staff that rewards innovative practices and encourages interdisciplinary and interdepartmental collaboration
- A growing portfolio of corporate collaborations that exploit NMU's technical expertise, enhance academic programs, and facilitate global engagement for students and faculty both on campus and abroad
- Develop the financial resources to support innovation and student success



*Five Year Capital Outlay Plan*

# Northern Michigan University

## Strategic Direction: Road Map to 2015 *(continued)*

### Meaningful Lives:

The personal, social, and intellectual maturity of NMU students is the ultimate benchmark of the achievement of the university's mission. A high-quality university education creates lifelong learners, contributing citizens, and thoughtful neighbors. NMU will develop those programs and employ those practices that maximize the opportunity for all students to succeed in their university experience and to lead a productive, meaningful life.

- A Liberal Studies Program that provides students with the abilities and knowledge necessary for lifelong learning and effective citizenship in a challenging and rapidly changing world
- Develop a new academic advising system that integrates the advising assets of academic departments and student services to contribute to a new, effective retention management network – similar to our enrollment management network
- Integrate the highest possible level of information technology skills and competencies throughout the university



*Five Year Capital Outlay Plan*

# Northern Michigan University

## Strategic Direction: Road Map to 2015 *(continued)*

### Campus Attributes:

The attractiveness of the NMU campus in the beautiful natural environment of the Upper Peninsula of Michigan is a unique asset that should play a prominent role in our portfolio of academic programs, our research agenda, and the efficiency with which the campus operates. While the campus itself represents NMU's physical assets, academic programs and other campus operations represent the human capital of the university community. Both are instrumental in sustaining the university's collective efforts to maintain a standard of excellent practice, manage costs, and achieve the institutional mission.

- Utilize the Campus Master Plan and related initiatives to continue to build and develop a greener and more learner-centered campus
- Enhance processes throughout campus operations to guide the use of resources and inform resource allocation
- Enhance the portfolio of academic programs, research, and other activities that leverage the university's location in the Upper Peninsula of Michigan
- Be a model community for sustainable education and practices



*Five Year Capital Outlay Plan*

# Northern Michigan University

## Strategic Direction: Road Map to 2015 *(continued)*

### Community Engagement:

Acknowledgement and use of the rich learning environment outside the campus energizes the faculty-student relationship and creates an essential bridge from theory to practice. According to the Carnegie Foundation for the Advancement of Teaching, a community-engaged campus collaborates with its larger communities (local, state, regional, national, and global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. Students who attend a community-engaged institution learn the broad context in which they live, work, play, and grow.

- Include all units of the campus in the process of community engagement; that is, collaborations between the university and its larger communities (local, state, regional, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity
- Increase faculty, staff, and student involvement in the Superior Edge program, academic service learning, and other community engagement and leadership development initiatives
- Put into action a commitment to be an inclusive community where differences are recognized as assets of the institution, respected attributes of the person, and a valuable part of the university experience
- Increase collaboration with local communities, schools, governments, development groups, and other partners to enhance community and economic development in the Upper Peninsula.



*Five Year Capital Outlay Plan*

# Northern Michigan University

## Academic Programs

### Baccalaureate Degree Programs

#### Major

Accounting  
Accounting/Computer Information Systems  
Accounting/Corporate Finance  
Accounting/Financial Planning  
Applied Math  
Art and Design - BS or BA  
Art and Design - BFA  
Art and Design Education  
Concentrations  
Ceramics  
Jewelry/Metalsmithing  
/Blacksmithing  
Drawing/Painting  
Electronic Imaging  
Photography  
Environmental Design  
Printmaking  
Film/Video  
Product Design  
Furniture Design  
Sculpture  
Graphic Communication  
Woodworking  
Illustration  
Art History  
Athletic Training  
Biochemistry  
Biology  
Biology Education

Botany  
Business Computer Information Systems  
Concentrations  
Marketing  
Software Development  
Networking  
Systems Analysis  
End User/Help Desk  
Business Undeclared  
Chemistry  
Chemistry (ACS Certified)  
Chemistry Education  
Clinical Laboratory Scientist  
Clinical Laboratory Scientist-Microbiology  
Clinical System Analysis  
Communication Disorders  
Computer Science  
Construction Management  
Criminal Justice  
Cytotechnology  
Diagnostic Genetics  
Earth Science  
Earth Science Education  
Ecology  
Economics  
Economics Education  
Electronics Engineering Technology  
Elementary Education (Undeclared)

# Northern Michigan University

## Academic Programs

### Baccalaureate Degree Programs (*continued*)

#### Major

English  
English/Elementary Education  
English/Graduate Bound  
English/Secondary Education  
Entertainment and Sports Promotion  
Entrepreneurship  
Environmental Conservation  
Environmental Sciences  
Concentrations  
Biological  
Physical  
Political Science  
Financial Management  
Forensics Biochemistry  
French  
French Education  
General Science/Chemistry  
General Science/Earth Science  
Geography Education  
Geography/Human  
Geography/Physical  
Geography/Social Studies Education  
Health  
Health Education/Secondary Education  
History  
Histotechnology  
History Education  
Hospitality Management  
Individualized Studies  
Industrial Technology  
Industrial Technology Education  
International Studies  
Language Arts/Elementary Education  
Liberal Arts and Sciences  
Loss Prevention Management  
Management  
Management of Health and Fitness  
Marketing  
Concentration  
IT Marketing  
Mass Communications  
Mathematics  
Mathematics/Elementary Education  
Mathematics/Secondary Education  
Mechanical Engineering Technology  
Media Production and New Technology  
Media Studies  
Mentally Impaired/Elementary Education  
Mentally Impaired/Secondary Education  
Microbiology  
Music  
Music Education  
Network Computing  
Nursing  
Outdoor Leadership and Management  
Personal finance  
Philosophy  
Physical Education

# Northern Michigan University

## Academic Programs

### Baccalaureate Degree Programs (*continued*)

#### Major

Physical Education/ED	Science Technologist
Physics	Ski Area Business Management
Physics Education	Social Science/Geography
Physiology	Social Science/History
Planning	Social Science/Political Science
Political Science	Social Science/Sociology
Political Science Education	Social Studies/Elementary Education
Political Science/Pre-Law	Social Studies/Secondary Education
Pre-Architecture	Social Work
Pre-Chiropractic	Sociology
Pre-Dental	Sociology in Liberal Arts
Pre-Engineering	Spanish
Pre-Law	Spanish Education
Pre-Medicine	Speech Communication
Pre-Optometry	Sports Science
Pre-Pharmacy	Technical Communication
Pre-Physician	Technology and Applied Sciences
Pre-Radiation	Theatre
Pre-Respiratory Therapy	Undeclared
Pre-Veterinary	Water Science
Psychology	Writing
Psychology/Behavior Analysis	Zoology
Psychology/Graduate School Preparation	
Public Administration	
Public Relations	

# Northern Michigan University

## Academic Programs

### Associate Degree Programs

#### Major

Automotive Service Technology  
Aviation Maintenance Technology  
Building Technology  
Child Care Services  
Climate Control Technology  
Clinical Laboratory Technician  
Computer Aided Design- Mechanical  
Computer Information Systems  
Crafts  
Criminal Justice  
Electronics Technology  
Food Service Management  
General Business  
General Studies  
Health Information Processing  
Histotechnician  
Individualized Studies  
Industrial Maintenance  
Industrial Media  
Law Enforcement  
Liberal Studies  
Manufacturing Technology  
Media Illustration  
Office Information Assistant  
Radiography  
Respiratory Therapy  
Surgical Technology

### Certificate Programs

Aviation Maintenance Technology  
Automotive Service  
Clinical Assistant  
Computer Numerical Control Technology  
Cosmetology  
Geographic Information Systems  
Heating and Air Conditioning/Refrigeration  
Individualized Studies  
Numerical Control Technology  
Plastic Injection  
Practical Nursing

### Diploma Programs

Advanced Law Enforcement  
Collision Repair Technology  
Electrical Line Technician

### Certifications

Cosmetology Instructor  
Manicurist  
Police Academy

# Northern Michigan University

## Academic Programs

### Graduate Programs

Administrative Service  
Community Planning  
General Administration  
Public Administration  
Biology  
Chemistry  
Criminal Justice  
Communication Disorders  
English  
    Literature  
    Pedagogy  
    Writing  
    Creative Writing  
Exercise Science  
Individualized Studies  
Nursing  
Advanced Adult Health Nursing  
Family Nurse Practitioner  
Public Administration  
    Community Planning  
    Criminal Justice  
    Financial Administration  
    General Administration  
    Health Care Administration  
    Personnel and Labor Relations  
    State and Local Administration

(Certificates)

Budget Administration  
Criminal Justice Management  
Health Care Administration  
Nurse Educator  
Personnel Administration  
Public Management  
Program Evaluation and Analysis  
Psychology  
Training and Development

### EDUCATION

Counseling  
School Counseling  
Educational Administration  
Administration and Supervision  
Instructional Leadership  
Elementary Education  
Mathematics Education  
Mathematics and Science Education  
Enhanced Mathematics and Science Education  
Reading  
Reading Specialist  
Science Education  
Secondary Education  
    Art and Design  
    Biology  
    Chemistry  
    English  
    French

# Northern Michigan University

## Academic Programs

### **EDUCATION** (*continued*)

- Geography
- Political Science
- Spanish
- Special Education
  - Learning Disabilities
- Education Specialist
  - Administration and Supervision
  - Literacy Leadership
- Education Certificates
  - State Professional Education Certificate, Elementary
  - State Professional Education Certificate, Secondary
  - Additional Endorsement
  - School Guidance Counseling Endorsement

### **Post-Baccalaureate Programs**

- Elementary Provisional Certificate
- Secondary Provisional Certificate

# Northern Michigan University

## Academic Programs

### Elementary Education Minors

Elementary Education Planned Component  
English  
French Education  
Geography  
History  
Language Arts  
Mathematics  
Physical Education  
Science  
Social Studies  
Spanish Education  
Special Education/Psychology

### Secondary Education Minors

Art & Design Education  
Biology Education  
Chemistry Education  
Earth Science Education  
Economics Education  
English Education  
Environmental Conservation Education  
French Education  
Geography Education  
Health and Nutrition Minor  
History Education  
Mathematics Education  
Physical Education  
Physical Education/Coaching  
Physics Education

Political Science Education  
Psychology Education  
Spanish Education  
Special Education/Psychology

### Non-Education Minors

Accounting  
Accounting/Computer Information Systems  
Anthropology  
Applied Ethics  
Architectural Technology  
Art & Design  
Art History  
Automotive Service Tech  
Biology  
Broadcasting  
Broadcasting/Production  
Business Administration  
Chemistry  
Child Care Services  
Clinical Laboratory Techniques  
Communications Disorders  
Computer Aided Design/Mechanical  
Computer Information Systems  
Computer Science  
Construction Systems  
Contracted Minor  
Criminal Justice

# Northern Michigan University

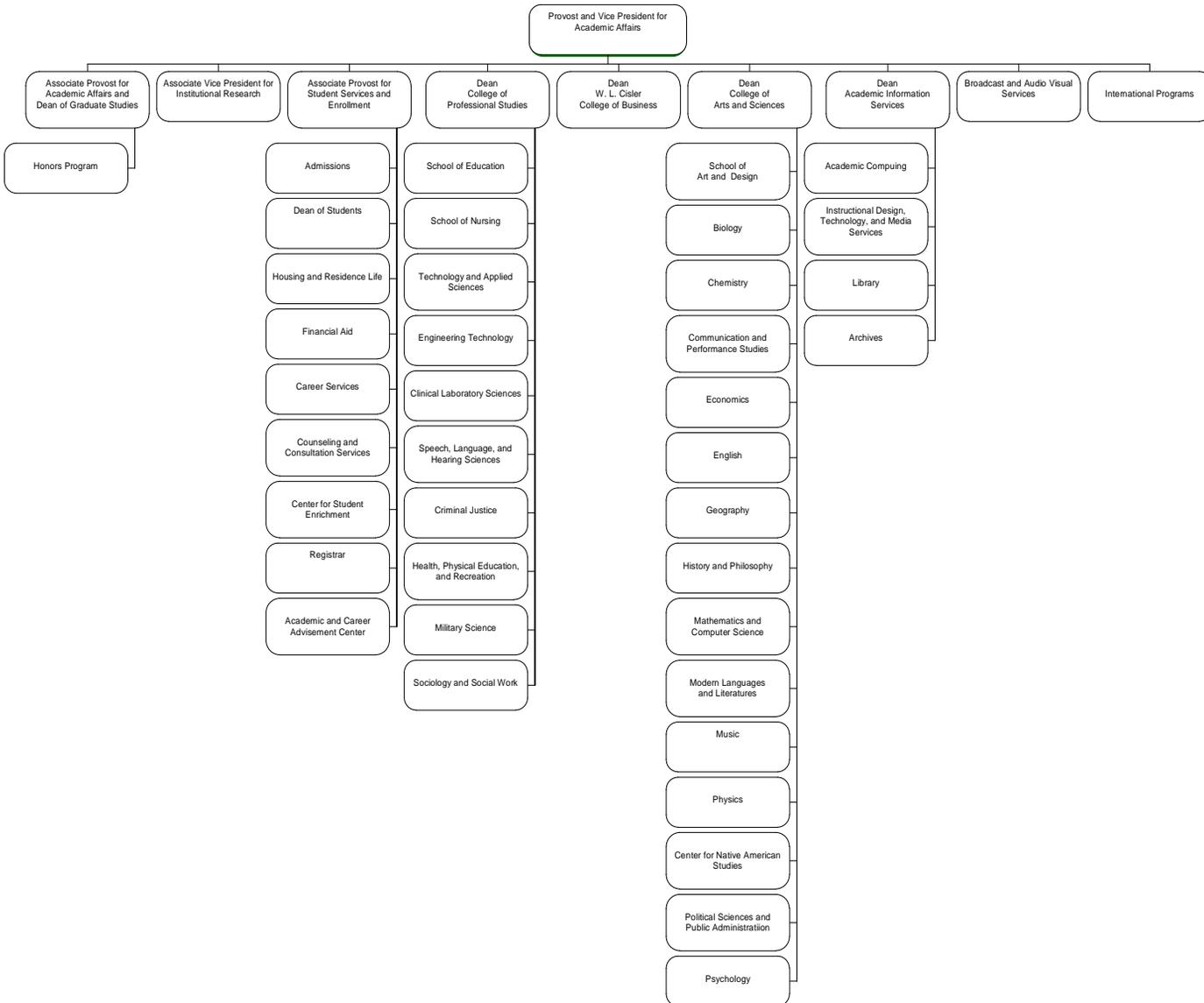
## Academic Programs

### Non-Education Minors (*continued*)

Earth Science	Mathematics Cluster
Economics	Military Science
Electromechanical Technology	Music
Electronics	Native American Studies
Electronics Service Technology	Nutrition
Emergency Medical Services	Office Services
English	Outdoor Leadership
Environmental Conservation	Outdoor Recreation
Finance	Outdoor Recreation Cluster
French	Performance Theatre
Gender Studies	Philosophy
Geography/Human	Physical Education/General
Geography/Physical	Physical Education/Coaching
German	Physics
Health Cluster	Planning
Health Education	Policy Evaluation Cluster
History	Political Science
Hospitality Service Management	Public History
Human Behavior Cluster	Psychology
Human Biology	Public Administration
Human Services	Public Relations
Industrial Maintenance Technology	Religious Studies
International Studies	Research Analyst
Interpretation & Outdoor Education	Social Welfare
Journalism	Sociology
Labor Relations	Spanish
Labor Studies	Speech Cluster
Latin American Studies	Speech Communications
Management	Substance Abuse Counseling
Manufacturing	Technical Theatre
Marketing	Theatre
Mathematics	Writing

# Northern Michigan University

## Academic Affairs Division



*Five Year Capital Outlay Plan*

# Northern Michigan University

## Instructional Programming

### Existing Academic Programs and Projected Programming Changes

Northern Michigan University's (NMU) vision is to be the comprehensive university of choice in the Midwest where students receive individualized attention in a high tech learning environment. Northern has experienced continued success in our efforts to grow enrollment. For fall 2007, we had an enrollment of 9,400 students, which is near the highest level in Northern's 109-year-history. This continued success in enrollment has come despite a declining enrollment in Upper Peninsula K-12 schools. Northern is continuing to attract more students from outside the Upper Peninsula with more than half of our new freshmen coming from the Lower Peninsula or outside the state, which has a positive impact on the local, regional, and state economy. The local newspaper has noted that "Growth at the university is great news for NMU and the local economy, and it's also a challenge." They also noted that the enrollment growth is "surprising, given the declining sizes of graduating classes around the Upper Peninsula." The continued declining size of the K-12 population in the Upper Peninsula is a significant challenge to the institution and our geographic location.

NMU's Roadmap to 2015 Strategic Plan includes many new program initiatives that will be implemented on an opportunity and strategic basis over the next seven years. The projected programming changes that would have specific structural considerations are listed below:

### Element 1: Innovation

The university experience is predicated on a blend of a number of intellectual and organizational enterprises. Northern must reinvigorate the standards and processes that will sustain successful programs, create new ones, eliminate programs with declining enrollment, and reflect the creativity of campus talents. The curriculum must remain relevant and meaningful, and our teaching must be contemporary and effective.

## Instructional Programming

### Existing Academic Programs and Projected Programming Changes (continued)

*An academic curriculum that balances successful programs with new offerings at the undergraduate and graduate level to meet the needs of students, as well as improve student career opportunities after graduation.*

Priorities include:

- Integrate global engagement and diversity learning experiences throughout the academic curriculum.
- Continue implementation of the faculty-mix model and faculty enhancement positions.
- Explore and act upon opportunities to expand programs in nursing and allied health to meet the growing demand for professionals in health care and related fields.
- Explore and act upon graduate programming (certificate, master's, doctoral) in areas of recognized strengths, needs and opportunities.
- Develop new applied programs in computing and IT-related majors.
- Develop a specific Road Map for certificate, one-year and two-year programs.

*A growing portfolio of corporate collaborations that exploit NMU's technical expertise, enhance academic programs and facilitate global engagement for students and faculty both on campus and abroad.*

Priorities include:

- Utilize corporate partners to promote additional international opportunities.
- Work with strategic technology and telecommunication partners to enhance the teaching, learning and working environment.
- Utilize corporate partners to increase internship opportunities for students.
- Utilize alternative energy plans to seed academic and research programs in energy and energy management.

# Northern Michigan University

## Instructional Programming

### Existing Academic Programs and Projected Programming Changes (continued)

#### Element 2: Meaningful Lives

The personal, social and intellectual maturity of NMU students is the ultimate benchmark of the achievement of the university's mission. A high-quality university education creates lifelong learners, contributing citizens and thoughtful neighbors. NMU will develop those programs and employ those practices that maximize the opportunity for all students to succeed in their university experience and to lead a productive, meaningful life.

*Integrate the highest possible level of information technology skills and competencies throughout the university.*

Priorities include:

- Create an enhanced infrastructure that will continually expand the availability and variety of new technological tools and services for NMU students, faculty and staff
- Develop a "virtual" campus that provides reliable, convenient access to online courses and other essential student services

#### Element 3: Campus Attributes

The attractiveness of the NMU campus in the beautiful natural environment of the Upper Peninsula of Michigan is a unique asset that should play a prominent role in our portfolio of academic programs, our research agenda and the efficiency with which the campus operates. While the campus itself represents NMU's physical assets, academic programs and other campus operations represent the human capital of the university community. Both are instrumental in sustaining the university's collective efforts to maintain a standard of excellent practice, manage costs and achieve the institutional mission.

# Northern Michigan University

## Instructional Programming

### Existing Academic Programs and Projected Programming Changes (continued)

*Utilize the Campus Master Plan and related initiatives to continue to build and develop a greener and more learner-centered campus.*

Priorities include:

- Establish strategies and a communication plan for implementation of the Campus Master Plan that ensures the highest possible level of input from the NMU and local communities as financially feasible components of the plan are implemented
- Examine classroom and other learning spaces to create the highest quality learning environments, and to advance the application of new pedagogies and technologies
- Continue campus discussions regarding the "library of the future" to identify state-of-the-art facilities, collections, technology and collaborations that will meet current and emerging instructional and research needs, and that will support the goals and priorities of the Road Map

*Enhance the portfolio of academic programs, research and other activities that leverage the university's location in the Upper Peninsula of Michigan.*

Priorities include:

- Consolidate NMU's several environmental science efforts into a cohesive whole that will take full advantage of educational and research opportunities unique to the natural environment of the Upper Peninsula to best attract and serve students and faculty
- Work to enhance opportunities, funding and events that strengthen and increase current university areas that focus on the Upper Peninsula—Center for Native American Studies, Center for Upper Peninsula Studies, Beaumier Heritage Center and NMU and Central Upper Peninsula Archives
- Create a task force to examine expanding or adding programs that take advantage of U.P. assets and that would be unique to the region or nation, including such assets as the environment, local geography, recreation, rural demographics and lifestyle and weather
- Provide seed funding for faculty-student research projects focused on the U.P. region

## Instructional Programming

### Existing Academic Programs and Projected Programming Changes (continued)

#### Element 4: Community Engagement

Acknowledgement and use of the rich learning environment outside the campus energizes the faculty-student relationship and creates an essential bridge from theory to practice. According to the Carnegie Foundation for the Advancement of Teaching, a community-engaged campus collaborates with its larger communities (local, state, regional, national and global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. Students who attend a community-engaged institution learn the broad context in which they live, work, play and grow.

*Increase faculty, staff and student involvement in the Superior Edge program, academic service learning and other community engagement and leadership development initiatives.*

Priorities include:

- Develop a resource plan for the Superior Edge and academic service learning programs to ensure optimal growth.
- Significantly increase the number of NMU students who participate in the Superior Edge, academic service learning and other leadership development opportunities
- Improve the alignment of the curriculum with the Superior Edge and academic service learning initiatives
- Implement strategies to assist students to more effectively communicate the skills and competencies developed through their achievements in community engagement

# Northern Michigan University

## Instructional Programming

### Existing Academic Programs and Projected Programming Changes (continued)

*Increase collaboration with local communities, schools, governments, development groups and other partners to enhance community and economic development in the Upper Peninsula.*

Priorities include:

- Establish a team of NMU faculty, under the auspices of the Sam M. Cohodas Scholar, who conduct and publish applied research that supports community and economic development across the Upper Peninsula
- Continue to increase and whenever possible promote a culture of openness and access through regularly scheduled community/campus forums, high-quality publications and the effective use of communication technologies
- Provide new faculty and staff with an on-the-road introduction to the U.P. to orient them to the assets, cultures and economy of the U.P. and to connect them with research ideas that will promote community and regional involvement
- Explore the feasibility of collaborating with existing community development organizations, units of government and the private sector to establish a high-tech economic development center on the NMU campus
- Explore the feasibility of collaborating with the state, U.P. universities and private alternative energy companies to make the Upper Peninsula a nationally recognized alternative energy and technology corridor

# Northern Michigan University

## Initiatives / Academic Program Needs with Impact on Facilities

### Instructional Programming:

A major part of NMU's success is its high-tech learning environment. The campus is a connected learning community with over 9,500 notebook computers distributed to students as part of the students' tuition and fees (the second most affordable tuition and fees in the state, including the notebook computer). These computers have built-in wired and wireless networking and are replaced on a two-year cycle. Wireless technology throughout campus provides improved student access in and out of the classroom and provides greater efficiency in delivery of student services via the internet. Over the next two years, the university plans to expand the wireless network to provide community-wide access through new WiMax technology that will blanket the surrounding county and provide wireless access from campus directly to more than 6,300 students that live off campus in the Marquette area. The improvements will include higher speed services for students to utilize in performing coursework and research. Northern is a leader in the development and utilization of web-based or web-enhanced courses. The university has more than 1,758 course sections developed utilizing Web-based software and more than 86 percent of our students are enrolled in at least one or more web-based or web-enhanced courses. NMU is a recognized leader (as noted by *Computerworld Magazine*) in using technology in higher education and our graduates enhance the economy of Michigan by being part of a work force that is among the nation's most technologically advanced and leadership oriented.

The university continues to focus on renovation and transformation of existing facilities to a state-of-the-art environmentally efficient campus. A connected learning environment requires that we continue to improve our support systems, technology infrastructure, and facilities. The university continues to move forward with its plans for the construction of a solid bio-mass fuel facility that would generate steam and electricity for most of the buildings on campus. The university is committed to the use of wood, a renewable resource, as the primary fuel for this combined heat and power project. The project includes the construction of a research facility that will explore ways to create alternative energy.

# Northern Michigan University

## **Initiatives / Academic Program Needs with Impact on Facilities**

### **Instructional Programming: (continued)**

The university's public radio and television stations will continue its transition to digital broadcasting. The television station completed a master control upgrade that will allow the station to program and switch multiple digital program streams. Future plans are for upgrade of a new digital transmitter, antenna, and microwave system. NMU intends to use digital television and radio transmissions to offer high definition broadcasts, plus up to four optional standard definition program streams that contain classroom and course content especially designed for higher education and K-12 instruction.

The university has in place a plan to grow our enrollment to 10,330. In support of our enrollment growth, future renovation projects include conversion of four floors in the Sam M. Cohodas Hall into faculty offices and general purpose classrooms, renovation of the Learning Resource Center to provide an interactive and multi-media instructional development center for students and faculty, and continued renovation of residence halls.

The initiatives noted above and the projected programming changes identified in NMU's Roadmap to 2015 Elements, Goals, and Priorities will have an impact on our facilities as they are implemented. We will continue to evaluate and plan for necessary changes in our capital infrastructure to meet the needs of proposed curriculum changes.

In addition, the capital outlay projects listed in Section V describe university needs to continue its conversion of the campus to a high-tech learning environment through renovation of existing facilities that are necessary to help support our growing and changing learning environment, including academic, recreational, and living facilities.

# Northern Michigan University

## NMU and Sustainability

Sustainability: reducing the environmental impact on the planet to minimize climate change by reducing the use of fossil fuels, conserving resources, and reducing waste. Northern Michigan University has embraced the sustainability movement in several ways: Computer controlled heating and cooling systems, thermal efficient windows and individual heating controls in residence halls, energy efficient lighting and controls technology, and water conserving plumbing fixtures. Coupled with installation of wells for irrigation systems, the university has saved over 25 million dollars since 1973 through its energy conservation program.

Heating and cooling usage has been reduced 25%, while conditioned space has increased 146% over the same period. Electrical usage has been reduced 1% and water usage has been reduced by 34%, while square footage has increased 77%, all due to an increased awareness to conservation of resources.

The university achieved LEEDS certification on the renovation of Meyland Hall and LEEDS Silver certification on Van Antwerp Hall renovation, and expects to receive LEEDS Silver certification on the Hunt Hall renovation project completed August 1, 2008. These coveted awards are among the first in the Midwest under the LEEDS certification system and speak to the university's continued commitment to Leadership in Energy and Environmental Design.

Since 1992 the university has diverted more than 5,000 tons of material from the landfill into a recycling program. In 2007 an additional effort began to recycle used batteries and the movement to a "single sort" program to make the first line recycling efforts easier for students, faculty, and staff. To further explore composting of waste food products, NMU Dining Services installed a food pulper in one of the Dining Services outlets. The pulper reduces food and compostable waste volume by 85%.

Other initiatives underway include use of biodegradable "spudware," cutlery manufactured from 80% potato starch and 20% soy oil, drink containers made from corn starch that biodegrade 60 days after use, and recycled paper napkins, plates, and cups.

Recycling and sustainability initiatives for 2008 include use of biofuel in selected grounds department vehicles, promoting "trayless service days" within campus dining service outlets, and expansion of the university's relationship with local and Michigan based producers to lower costs for products and supplies, with concentration on an alternative fuel supplier for the university's proposed Combined Heat and Power facility.

# Northern Michigan University

## Community Presence Activities

### Intercollegiate Athletics and Recreational Sports Facilities

NMU athletic and recreational facilities serve as a regional events center for the entire Upper Peninsula. A number of recreational and leisure programs are offered within the facilities for the community and include ongoing walking programs, recreational programming for children, adults, and youth sports camps. Youth programs in hockey, basketball, volleyball, swimming/diving, soccer, track and field, and others meet in our facilities throughout the year. Exercise and aquatic programs for senior citizens are held as well. These facilities have also become a major tourist destination for visitors in our area. Approximately 225,000 people pass through the Superior Dome turnstiles on an annual basis. The Superior Dome is home to Northern Michigan University football, and hosts high school football regular season games, as well as many MHSAA football playoff games, Marquette County Youth Football Dome Day, high school track and field meets, NMU and youth soccer tournaments, Lacrosse, local non-profit fundraising events, Michigan Special Olympics, and K-8 school field day programs are several examples of other activities taking place in the Superior Dome. The Superior Dome also serves the needs of regional business and industry by providing a venue for various trade shows and conferences. The Michigan Municipal League, Michigan Association of Counties, Midwest Regional Cable Television Managers meeting, Michigan Association of Water Works, U.P. Job Fairs, Boat, Sport and Recreational Vehicle Show, Marquette County New Show, and the U.P. Builders Show are all examples of trade shows and conferences hosted in the Superior Dome. NMU Commencement activities are held in the Superior Dome each December and May.

The Berry Events Center is home to Northern Michigan University hockey and basketball. The facility hosts many junior hockey tournaments, NMU men's and women's club hockey games, as well as figure skating programs. The USOEC short track speed skating programs train in this facility and hosts prestigious competitions. The Berry Events Center also plays host to numerous concerts, lectures, banquets, and conferences. NMU students use the facility for activity and classroom academic coursework.

The Physical Education Instructional Facility (PEIF Building) is home to Northern Michigan University volleyball. The facility hosts numerous community events, youth sports tournaments, youth sports camps, Native American Pow Wows, concerts, and lectures. NMU students, faculty, staff, and Marquette area community members utilize recreation venues in the PEIF through recreation memberships daily (year round). The PEIF is a comprehensive indoor recreation facility that contains instructional activity venues and classrooms for NMU students.

# Northern Michigan University

## Community Presence Activities *(continued)*



### Intercollegiate Athletics

Northern Michigan University offers thirteen (13) intercollegiate men's and women's sports. Approximately 320 student athletes compete in NCAA events annually, with an average of 90 contests held in Marquette County. An average of 110 visiting athletic teams visit the Marquette area annually to compete in events held at NMU. Events held at NMU regularly attract fans from throughout the Upper Peninsula, as well as Northern Wisconsin and Lower Michigan. Fans representing opposing teams from Ohio, Wisconsin, Nebraska, Illinois, Minnesota, Indiana, Alaska, and Canada annually attend events at NMU. The majority of these groups spend multiple days on each visit to Marquette.

### U.S. Olympic Education Center

NMU is home to the nation's only United States Olympic Education Center. The Center provides Olympic-aspiring athletes the opportunity to continue their education while training to represent all Americans at the Olympic Games and other international events. Since 1985, more than 22,000 athletes from 43 countries have trained at the USOEC. More than 400 of these athletes have made Olympic teams earning 60 Olympic medals, along with high school diplomas and college degrees.



*Five Year Capital Outlay Plan*

# Northern Michigan University

## Community Presence Activities *(continued)*



NORTHERN INITIATIVES  
is a non-profit  
community development  
corporation

### **Northern Initiatives**

NMU invests annually in Northern Initiatives (NI), a non-profit economic development corporation now housed on the NMU campus. NI serves 49 rural counties; its original fifteen Upper Peninsula counties, twenty-nine counties in the northern Lower Peninsula, and the five Wisconsin counties that border the Upper Peninsula. NI provides assistance to small business entrepreneurs, aiding them to fill capital, information, and market access gaps that characterize enterprises that are often remote, isolate, and sometimes seasonal in nature. NI provides business development services to over 200 companies annually and since 1994 has loaned over \$20M to nearly 500 businesses, with 54% of its loans going to start-up enterprises. NI annually works with around 100 manufacturers and small businesses supporting them with consultations or technical assistance. It also works on regional sustainability projects that offer small businesses the ability to reach larger markets. Its current example is the Great Waters, Nature Tourism Initiative, [www.greatwaters.net](http://www.greatwaters.net).

### **Community College and Meeting Needs of Business and Industry**

NMU serves the community college role for the citizens of Marquette and Alger Counties. NMU's community college programs offer students an array of associate degrees, certificate programs, diploma programs, and certifications in 50 areas of study.

Northern maintains extensive partnerships with K-12 schools through outreach activities, student teaching positions, and professional development for teachers and administrators. Nearly every school district in the Upper Peninsula has recently hosted NMU student teachers. These partnerships with schools provide experience with all class-levels in public, private, and charter educational settings. To further the value of these experiences, NMU has extended its wireless signal to student teachers in K-12 schools. NMU's Centers for Educational Development and Economic Education and the Seaborg Center for Math and Science Education provide a wide variety of professional development opportunities for teachers and administrators across the Upper Peninsula. NMU also works with a number of schools in Michigan's Lower Peninsula, Northern Wisconsin, and Chicago. Additionally, NMU works with five public school academies (charter schools) in Michigan.

# Northern Michigan University

## Community Presence Activities *(continued)*

### Distance Education and Instructional Support

To provide greater access to education for the citizens of the region, NMU has expanded its use of instructional, career pathway and "virtual field trip" experiences to K-12 schools in response to new high school graduation requirements and shrinking school budgets. Programs are conducted using internet-based interactive TV (ITV) technology and developed with content experts from within the University and surrounding areas and are designed specifically to assist students in learning about possible career and higher education choices that are available after graduation. In addition, NMU offers continuing education for teacher certification and enrichment using interactive TV and works with local Regional Educational Services Agencies to support the technology needs of area schools. These cost effective ITV services help NMU expand the educational horizon of budget challenged school districts and offer students and teachers access to advanced learning services. Using web-based instructional methods NMU offers advanced education in areas such as nursing, criminal justice, public administration and business. In support of these efforts, NMU recently received authorization in 2008 from the Federal Communications Commission (FCC) to begin deployment of next generation wireless services that are operable with emerging, portable handheld communications devices. These high-bandwidth tools support teaching and learning where students, because of weather, employment or other circumstances find it impossible to attend classes on NMU's campus.

# Northern Michigan University

## Community Presence Activities *(continued)*

### **Public Broadcasting**

NMU's public radio and television stations continue with their transition to digital broadcasting. In 2007, WNMU-FM became the first radio station in Upper Michigan to begin digital broadcasting with the capacity to add auxiliary program streams to its main broadcast signal. The station currently is negotiating with program providers to add new program content that will enhance the public's listening and also aid in the distribution of course related audio content. Likewise, WNMU-TV is also migrating to full digital broadcasting and in the first quarter of 2008, completed a \$1.7 million master control upgrade that allows the television station to program and switch multiple, digital program streams. By the federally mandated digital transition deadline in February, 2009, WNMU-TV will have completed its transmitter replacement project and later that year, converted its studio production facilities to all digital. This latest studio conversion project will be 100% funded by a \$633,231 Rural Utilities Service Digital Conversion grant .

NMU intends to use digital television and radio transmissions to offer Michigan's Upper Peninsula residents high definition broadcasts, plus additional standard definition program streams that contain classroom and course content especially designed for higher education and K-12 instruction. Digital television and radio broadcasts will also have the capability to support broadband data that will benefit instruction and public safety services alike. Both stations continue to provide service learning opportunities for NMU students with hands-on production, graphics, and electronic engineering opportunities.

# Northern Michigan University

## **Economic Impact / Partnerships with Business and Industry**

### **Economic Impact**

Northern Michigan University (NMU) has a significant impact on the economy of the Upper Peninsula (UP). According to an economic study completed in March 2001, the total impact that NMU has on economic activity in the UP is \$262 million. The study indicated that NMU has an impact on more than 5,000 jobs which represents one of every 25 jobs in the UP, and one of every five in Marquette County. The economic impact generates a five-to-one return on the annual investment in NMU by the State of Michigan.

### **Partnerships with Business and Industry**

Northern has a variety of partnerships to meet the needs of existing businesses, emerging industries, the public schools, and working adults. Among our current corporate partners with on-site or specially designed education programs are Cliffs Natural Resources, In., Louisiana Pacific-Newberry, Pioneer Surgical Technologies, WE Energies, Smurfit-Stone Container, and NewPage Corporation.

Internships for NMU students with business, industry, and service providers are critical to quality employment preparations. Among NMU's most well-known internship sponsors are American Express Financial Advisors, General Motors, Hudson's Corporation, Dendreon, Mayo Clinic, Marquette General Health Systems, Marshfield Clinic, Michigan State Police, Michigan DNR, Northwestern Mutual Life, Six Flags Great America, State Farm Insurance, the U.S. Marshall Service, and WalMart. Additionally, internships are also sponsored by major construction firms across the nation such as Whiting-Turner, Mortenson, Michels Corporation, and Power Construction.

### **Partnership with Marquette General Hospital**

Northern Michigan University has entered into a partnership with Marquette General Hospital in order to offer two new associate degree programs. New accreditation standards require that all hospital based training programs form a partnership with an academic institution. The Radiography and Respiratory Therapy Programs represent a collaborative effort between Marquette General Hospital and the Clinical Laboratory Sciences Department, which will result in students being awarded an associate's degree.

# Northern Michigan University

## **Economic Impact / Partnerships with Business and Industry** *(continued)*

The first majors were enrolled at NMU in fall 2007. The programs require one year of prescribed prerequisite course work at NMU. Following that, students would complete a two year clinical practicum at Marquette General Hospital. These two programs will help meet the increasing need for accredited professionals in these two rapidly growing fields. Graduates will be in high demand, both locally and regionally. All of these credits will also ladder into a bachelor's degree program which is currently being developed.

### **School of Technology and Applied Sciences**

#### **Cliffs Natural Resources, Inc.**

The School of Technology and Applied Sciences works closely with Cliffs Natural Resources, Inc. (Cliffs) to prepare entry level technical employees for both the Tilden and Empire mining/processing operations. Associate Degree programs in Industrial Electrical and Industrial Maintenance, along with baccalaureate degree programs in Mechanical Engineering Technology, Industrial Technology, and Electronics Engineering Technology, prepare graduates for employment with this local company. Additionally, NMU staff and faculty are in the beginning stages of developing a company specific apprenticeship program that will serve the mining operations, as well as the proposed nugget processing plant expansion. Management at Cliffs views the technical programs at NMU as virtually a sole source provider of entry level technical talent to their mining/processing operations.

Cliffs is committed to continuing their partnership with Northern Michigan University by leasing additional space within the Jacobetti Center in order to provide state-of-the-art training for their employees. NMU facilitates these training events by often coordinating the training agenda and securing training expertise.

Cliffs further relies on NMU to provide on-going factor testing and skill upgrade training for existing workers. This testing and training requires working labs equipped with the industry's highest technology manufacturing and processing components. The company partners closely to assist NMU in acquiring much of the needed lab equipment. This level of cooperation is dependent on, and evidence of, a close working relationship between academics and industry.

# Northern Michigan University

## **Economic Impact / Partnerships with Business and Industry** *(continued)*

### **Louisiana-Pacific, Newberry**

Considerable collaboration resulted in a customized skill gap analysis product that initially assessed 26 Louisiana-Pacific employees. The gap analysis will assist the company in reliably determining training needs. Louisiana-Pacific continues to administer the written assessments as needed for new hires and promotion candidates. Hands-on assessments, assessment scoring, and gap analysis reports are provided by NMU.

### **Wisconsin Public Service Company**

During 2004 a major employee assessment project was conducted by the School of Technology and Applied Sciences for electrical and mechanical maintenance employees at two Wisconsin Public Service electric generation facilities. The assessment resulted in a Training Gap Analysis document which will guide WPS management as employee training is scheduled and delivered as part of an employee upgrade program. WPS is pleased with the work done by NMU faculty.

### **AMR (American Eagle Airlines)**

An excellent working relationship exists between the NMU School of Technology and Applied Sciences and the AMR Sawyer Maintenance facility resulting in 30-50% of the students graduating in the NMU Aviation Maintenance program being hired by AMR.

### **Ironwood Plastics**

Students have access to a scholarship endowment from Ironwood Plastics to provide students with a certificate in Injection Molding Technology. This program provides graduates with the necessary skills for entry-level employment within the plastic injection industry.

### **Regional Organized Labor Unions**

Apprentice training for four area trade unions is located in the D.J. Jacobetti Center at NMU. The Local 6 Bricklayers, Local 7 Sheet Metal Workers, Local 8 Iron Workers, in addition to the Local 506.

Plumbers and Pipefitters have all located their regional training base to the Jacobetti Center. In addition to the apprentice training, journeyman upgrade sessions within each trade jurisdiction will be offered. Each year, from August through June, nearly 700 hours of instruction takes place.

# Northern Michigan University

## **Economic Impact / Partnerships with Business and Industry** *(continued)*

The Operating Engineers Local 324, located in Howell, Michigan, has chosen NMU as its regional training center for their annual January session. Thirteen different units of instruction are offered, ranging from asbestos and hazardous material awareness to welding certifications.

### **Food Industry**

In response to changes in Michigan's food safety laws, NMU conducts mandatory food safety certification courses. All food industry businesses, including those closely linked with the critical regional tourism industry, are able to have local access to regulatory training.

### **TeamTech Motor Sports**

The NMU student group of the Society for Automotive Engineers partnered with TeamTech Motor Sports to build two mini baja vehicles used in student competitions across the Midwest.

### **Pioneer Surgical Technology**

A close working relationship continues between NMU and Pioneer Surgical Technology, a Marquette based designer and manufacturer of orthopedic implants. Entry level production employees are prepared in a one-year CNC program offered by NMU in the Jacobetti Center, along with seminars at the nearby Pioneer facility. Other ongoing cooperative programs between NMU and Pioneer Surgical include undergraduate internships and continuing education seminars for Pioneer employees offered by NMU faculty.

### **Electrical Line Partnership**

A joint venture between Northern Michigan University, The Lake Superior Community Partnership, Michigan Works, and numerous electrical companies (both utilities and contractors) developed the Electrical Line Technician Program to help fill an employment void within the Electrical Power Distribution industry. The curriculum received all equipment through donations, and is located at Sawyer.

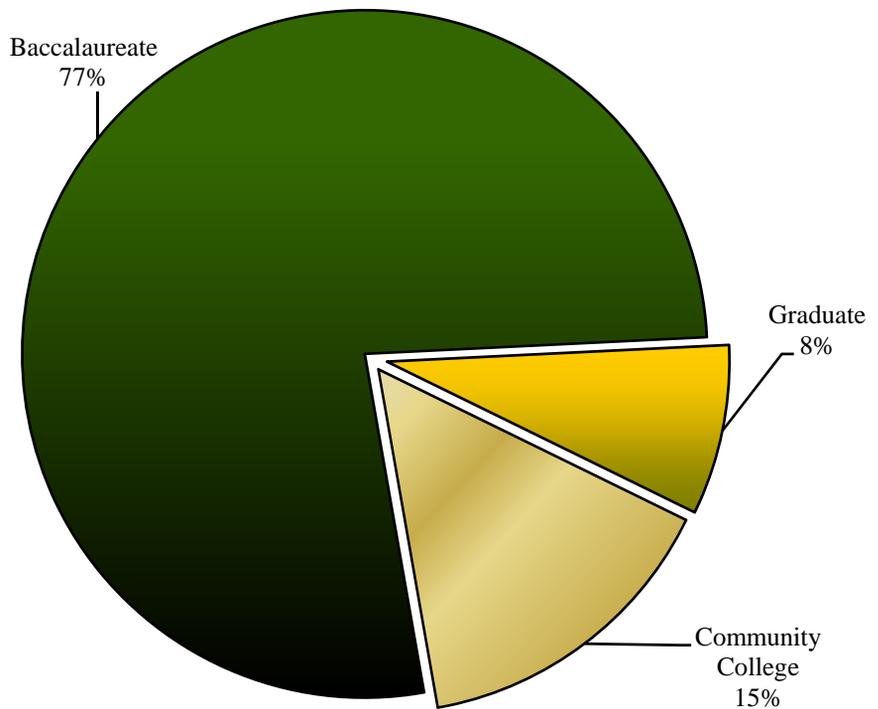
# Section III Enrollment and Staffing

# Northern Michigan University

## Enrollment

### Headcount

Fall 2008 (n = 9,123 – 10<sup>th</sup> Day of Class)



#### Average age

- ▶ Baccalaureate: 22.8
- ▶ Graduates: 37.7
- ▶ Overall: 23.9

#### Other student statistics

- ▶ At least one student from:
  - ▶ 83 of 83 Michigan counties
  - ▶ 45 different states
  - ▶ 18 different countries

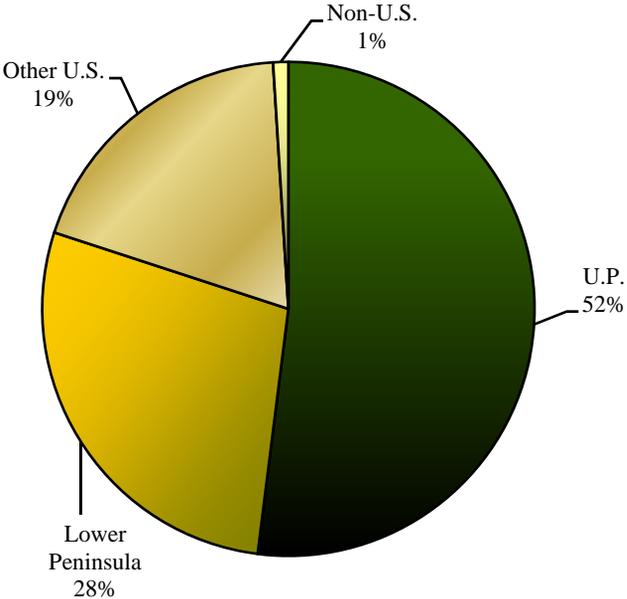
# Northern Michigan University

## Enrollment

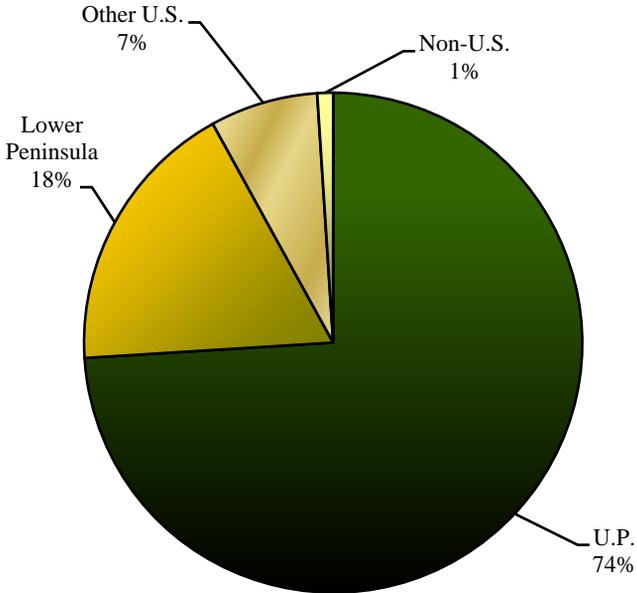
### Recruiting Region

Fall 2008 (n = 9,123 – 10<sup>th</sup> Day of Class)

#### Undergraduate (n = 8,438)



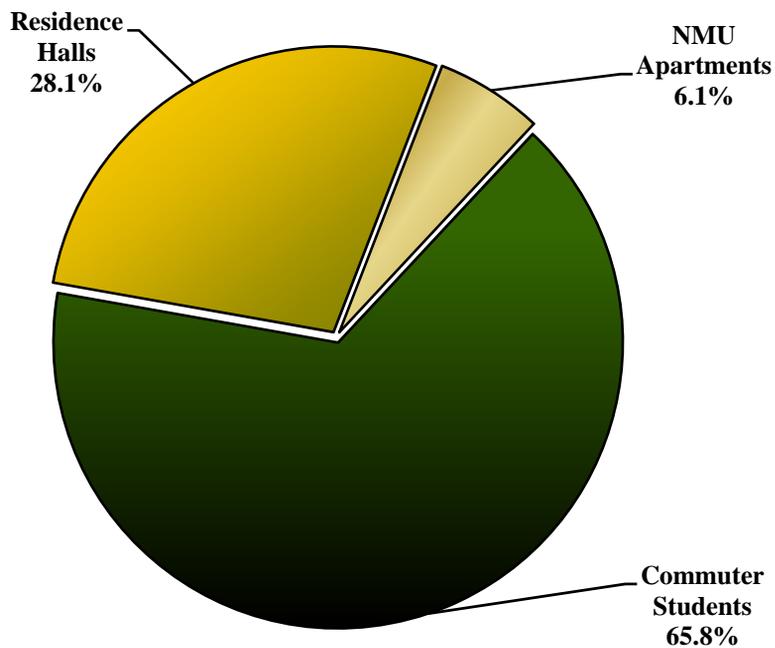
#### Graduate (n = 685)



# Northern Michigan University

## Enrollment

**Where NMU Students Live**  
Fall 2008 (n = 9,123 – 10<sup>th</sup> Day of Class)



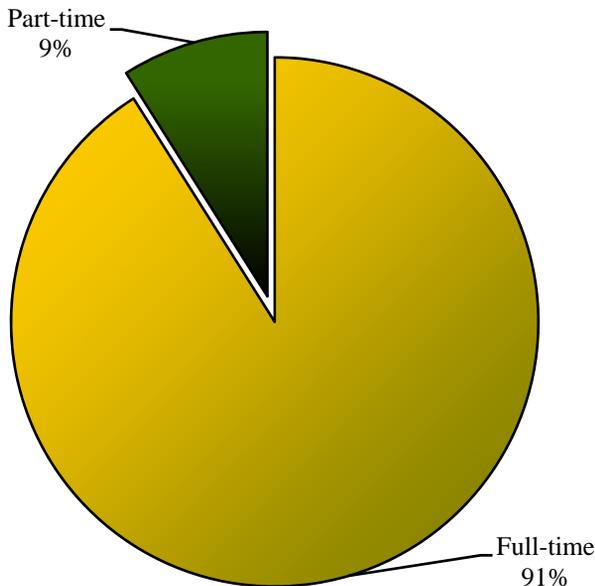
*Five Year Capital Outlay Plan*

# Northern Michigan University

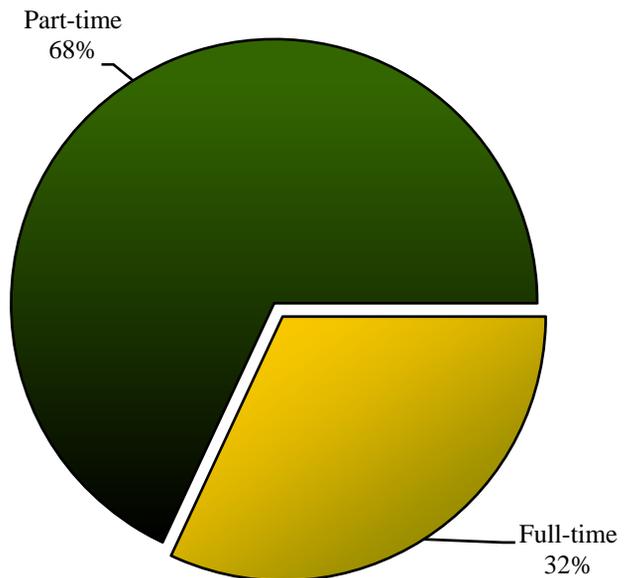
## Enrollment

### Full-time/Part-time Status Fall 2008 (n = 9,123 – 10<sup>th</sup> Day of Class)

#### Undergraduate (n = 8,438)



#### Graduate (n = 685)



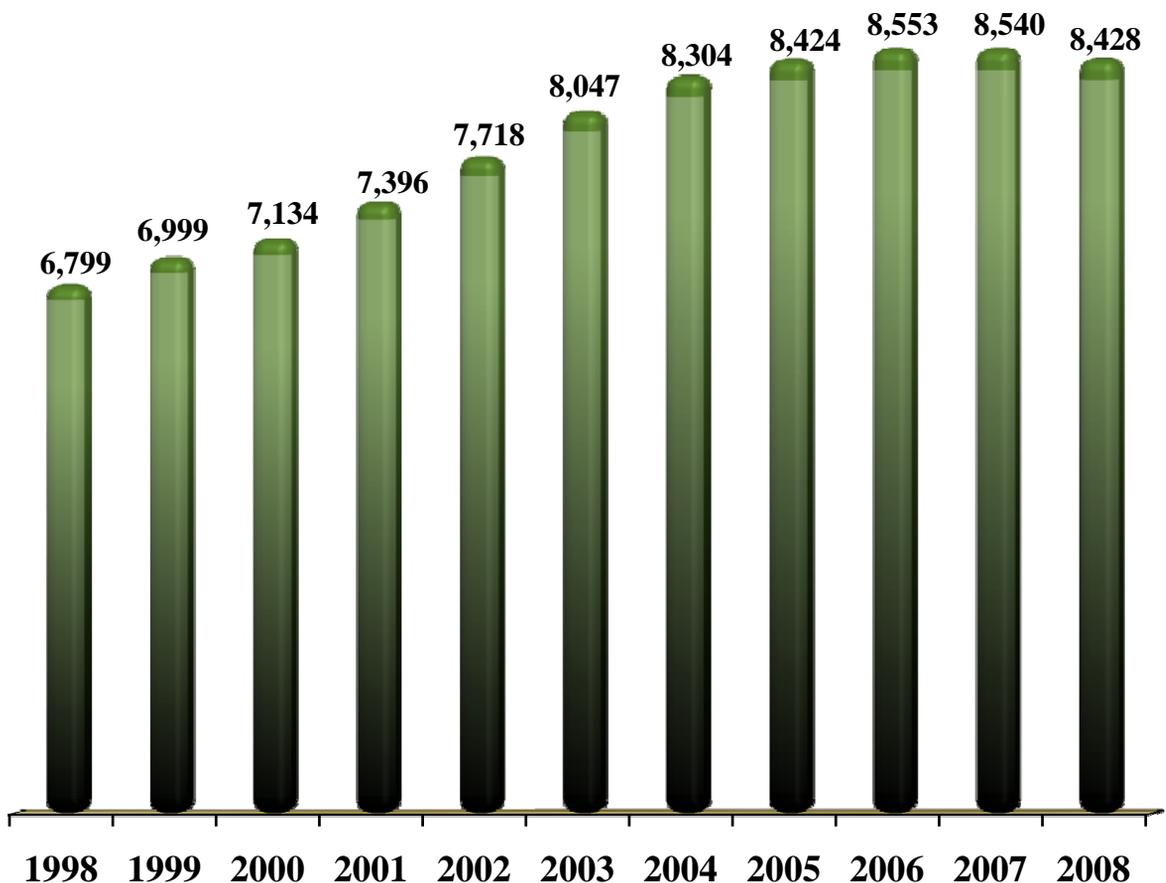
# Northern Michigan University

## Enrollment

### Full Year Equated Student Change

- ▶ FYES decreased for the second successive year after eight consecutive years of growth
  - ▼ Decrease of 1.3% as compared to prior year
  - ▲ Overall increase of 23.9% since 1998

### NMU FYES



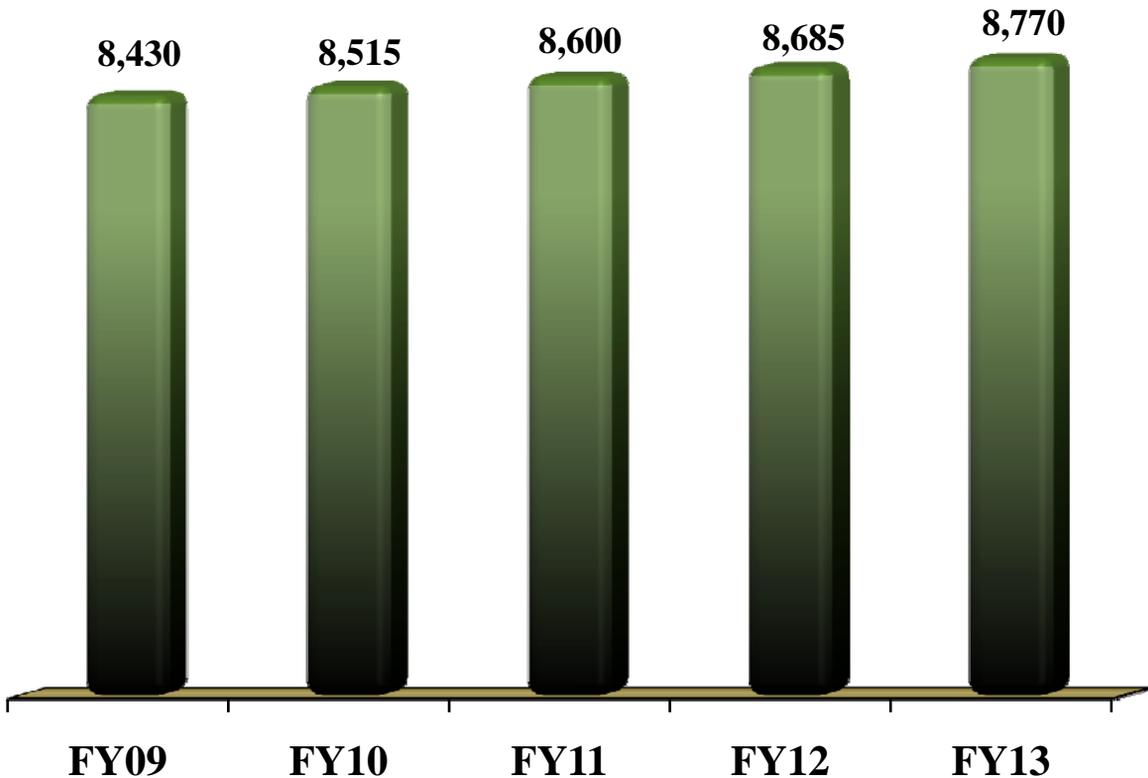
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# Northern Michigan University

## Enrollment

### Full Year Equated Student Change (FYES)

#### 5 Year Projection



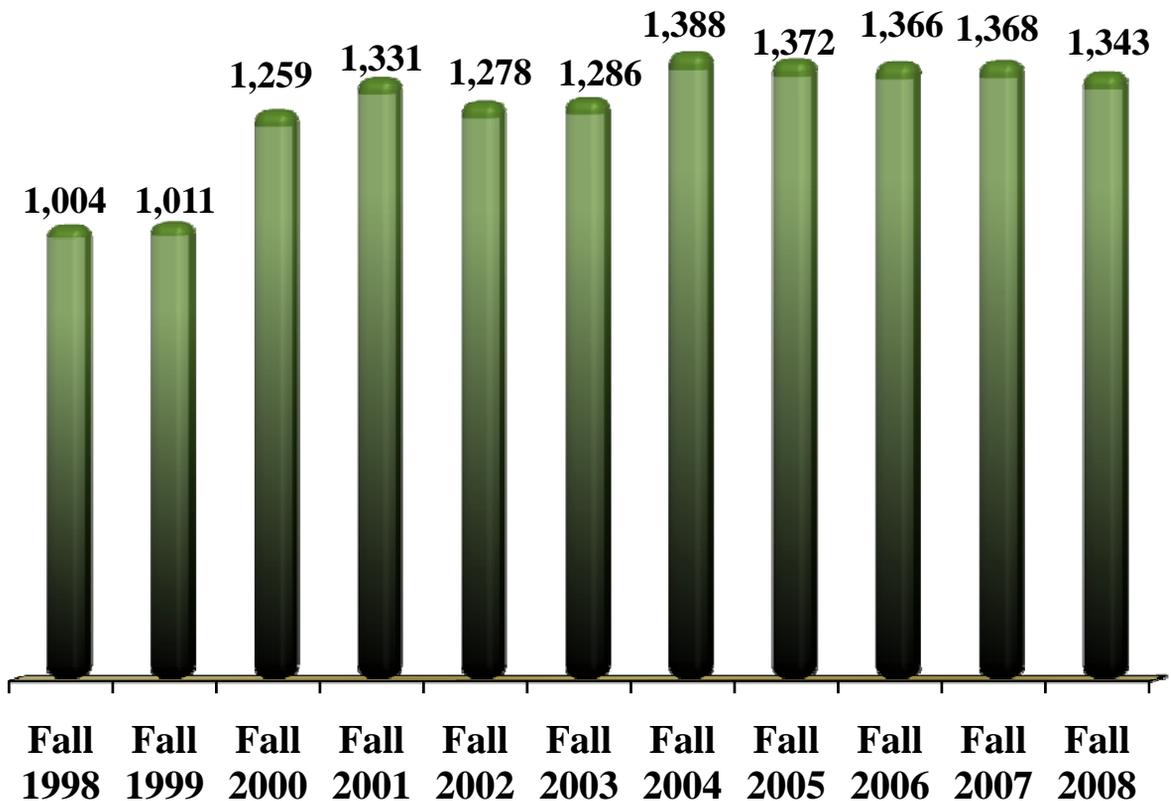
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# Northern Michigan University

## Enrollment

### Baccalaureate First-Time, Full-Time New Freshmen

- ▶ Fall 2008 Freshman Class remains comparable to prior four year numbers
- ▶ Fall 2008 Freshman Class Increased by 33.8% Since Fall 1998

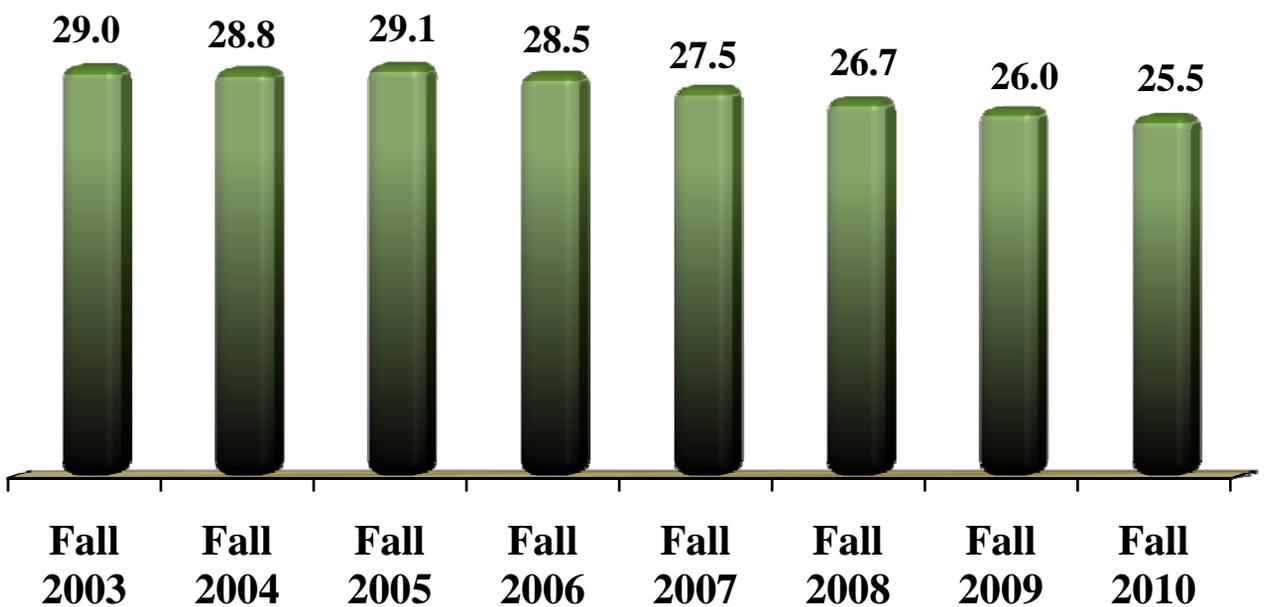


*Five Year Capital Outlay Plan*

# Northern Michigan University

## Enrollment

### Average Lecture Class Size and Projected Average Class Size

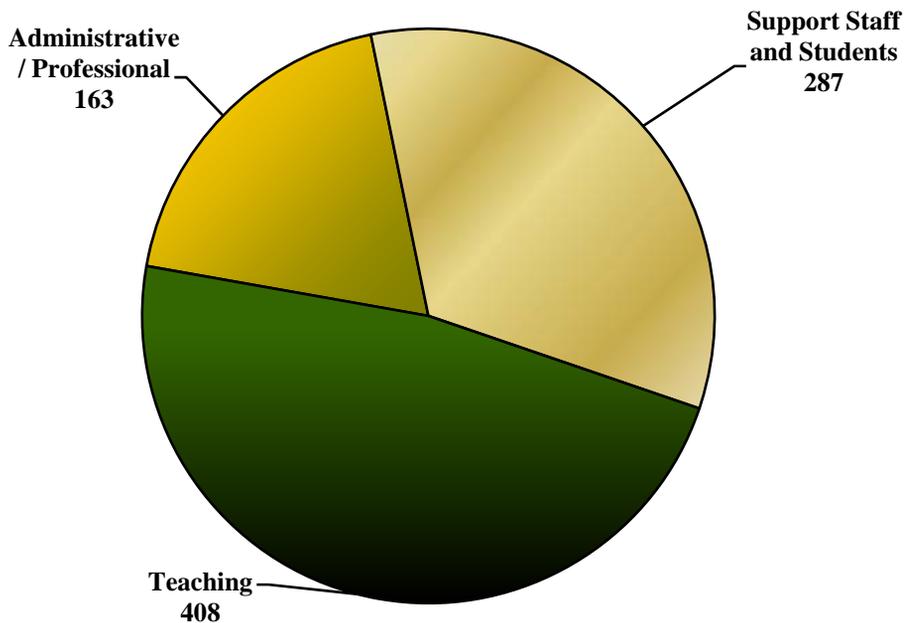


*Five Year Capital Outlay Plan*

# Northern Michigan University

## Staffing

### 2007-2008 Full-Time Equivalent By Employee Category



### Staff FTE

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Teaching (Instructional Staff)	364	362	363	372	383	402	408	416	425	430	434
Administrative/Professional Staff	193	200	186	163	156	161	163	163	163	163	163
Service Staff and Students	312	308*	306	308	270	277	287	287	287	287	287

\* Decrease in Service Staff and Students is a result of a State reporting change for College Work Study FTE

### Student (FYES) - to - Staff Ratios

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Teaching (Instructional Staff)	21.20	22.23	22.88	22.65	22.33	21.24	20.65	20.26	20.03	20.00	20.01
Administrative/Professional Staff	39.99	40.24	44.65	51.68	54.83	53.03	51.55	51.56	52.08	50.60	53.12
Service Staff and Students	24.74	26.13	27.14	27.53	31.68	30.82	29.37	29.37	29.67	29.97	30.26

Northern Michigan University

# Section IV Facility Assessment

*Five Year Capital Outlay Plan*

# Northern Michigan University

## Introduction

In 2001 the university contracted to develop a comprehensive Facility Condition Analysis, or benchmark for the existing condition of all campus buildings and hardscape. These reports identified maintenance needs and associated costs and divided them into categories based on priority, system type, and facility type. Each year one-third (1/3) of all campus facilities are inspected by a professional engineering and architectural firm to update these reports to ensure current maintenance needs are identified and projected costs are kept current.

The Facility Condition Analysis reports are used to prioritize, budget, and plan yearly maintenance projects to be completed by both internal departments and external contractors.



*Five Year Capital Outlay Plan*

# Northern Michigan University

## Facilities Assessment

- ◆ **NMU Physical Plant Overview**
  - ▶ 64 Buildings
    - ▼ 3.48 million square feet
  
  - ▶ 684 acres
    - ▼ 359 acres on main campus
    - ▼ 120 acres - Longyear Forest
    - ▼ 206 acres - near Mount Marquette
  
  - ▶ 3.6 miles of roadway
  
  - ▶ 13.95 miles of sidewalk



*Five Year Capital Outlay Plan*

# Northern Michigan University

## Facilities Condition Cost Analysis by Priority Class For All State Buildings

Buildings	Immediate	Year One	Years Two to Five	Years Six to Ten	Total
ADA B. VIEMETTI HEALTH CENTER		\$14,165	\$52,881	\$76,878	\$143,924
ART AND DESIGN		105,994	5,249	878,223	989,466
BERRY CENTER LINK			2,722	36,572	39,294
BUS GARAGE			15,688	3,134	18,822
BUTLER BUILDING		15,245	36,086		51,331
*CAREY HALL	90,837	309,779	5,169,027	499,653	6,069,296
DOME / PEIF LINK		2,133	215	14,711	17,059
EVENTS CENTER	217,329			453,463	670,792
FOREST ROBERTS THEATRE		632,824	612,887	406,282	1,651,993
NEW SCIENCE FACILITY	2,728	39,471	68,696	852,348	963,243
*HARRY D. LEE HALL	115,959	280,803	3,839,938	172,665	4,409,365
JACOBETTI CENTER		1,182,788	2,813,632	4,123,827	8,120,247
JACOBETTI STORAGE		18,824	3,756	49,755	72,335
JOHN X. JAMRICH HALL	32,885	469,728	6,105,948	2,278,190	8,886,751
KAYE HOUSE (PRESIDENT'S HOUSE)			47,413	34,897	82,310
LEARNING RESOURCE CENTER	98,175	956,097	10,715,431	2,232,284	14,001,987
LRC/WS LINK		10,054	6,895	18,766	35,715
LUTHER S. WEST SCIENCE BUILDING				1,012,238	1,012,238
McCLINTOCK BUILDING		338,812	458,579	418,700	1,216,091
PHYSICAL EDUCATION INSTRUCTION FACILITY		1,783,188	2,121,900	1,544,874	5,449,962
RIPLEY HEATING PLANT		3,467	42,425	89,826	135,718
SAM M. COHODAS HALL	9,351	41,533	2,688,360	5,196,795	7,936,039
SERVICES BUILDING			102,558	223,199	325,757
SUPERIOR DOME		5,677,171	484,010	361,007	6,522,188
UC/GRIES LINK		37,073		69,514	106,587
WALTER F. GRIES RESIDENCE HALL		34,849	286,624	589,366	910,839
C.B. HEDGCOCK					-
THOMAS FINE ARTS		9,158		27,406	36,564
<b>Other</b>					
UTILITY INFRASTRUCTURE	175,334	92,154	20,190,876	331,182	20,789,546
HARDSCAPE		93,114	207,219	888,392	1,188,725
CAMPUS SECURITY			414,524		414,524
<b>Totals</b>	<b>\$742,598</b>	<b>\$12,148,424</b>	<b>\$56,493,539</b>	<b>\$22,884,147</b>	<b>\$92,268,708</b>

\* These Buildings were vacated in FY 2005

# Northern Michigan University

## Facilities Condition Cost Analysis by Priority Class For All Auxiliary Buildings

Buildings	Immediate	Year One	Years Two to Five	Years Six to Ten	Total
CENTER STREET APARTMENTS	\$ 50,038	\$ 409,574	\$ 4,489,434	\$ 566,536	\$ 5,515,582
CHARLES C. SPOONER HALL	56,140		5181284	372,709	5,610,133
DON H. BOTTUM UNIVERSITY CENTER	126,644	124,873	13,073,453	2,038,617	15,363,587
GANT HALL	26,576		4,686,514	1,438,181	6,151,271
HALVERSON HALL	148,405		4,276,270	1,438,321	5,862,996
LINCOLN STREET APARTMENTS	105,727	369,812	5,101,204	1,096,477	6,673,220
MAGERS HALL		6,653		42,316	48,969
MAUDE L. VAN ANTWERP HALL			7,499	6,267	13,766
NORWOOD STREET APARTMENTS	44,184	730,112	3,286,623	110,447	4,171,366
PAYNE HALL	156,870		4,293,887	1,438,181	5,888,938
QUAD 1	7,568		96,504	308,821	412,893
QUAD 2	80,525	975,987	3,378,017	731,300	5,165,829
SPALDING HALL	62,729		4,535,164	1,432,471	6,030,364
WILBUR D. WEST HALL	27,167		6,025,814	599,438	6,652,419
WILKINSON HOUSE			212,372		212,372
SUMMIT STREET APARTMENTS	46,765	453,811	5,790,641	1,317,381	7,608,598
<b>Totals</b>	<b>\$ 939,338</b>	<b>\$ 3,070,822</b>	<b>\$ 64,434,680</b>	<b>\$ 12,937,463</b>	<b>\$ 81,382,303</b>

# Northern Michigan University

## *Five Year Capital Outlay Plan*

# Northern Michigan University

## Facility Assessment *(continued)*

### Long Term Maintenance

Since September 2007, Northern has completed \$6.4 million of long term maintenance for state buildings, auxiliary buildings, utility infrastructure, security, and hardscape. Examples of some of these projects include, but are not limited to, the following:

- Hunt Hall Renovation
- Sidewalk, roof , window and door replacement
- Chiller and boiler replacement
- Energy management system upgrades
- Classroom upgrades

When buildings are renovated, long term maintenance projects are incorporated whenever possible. This fiscal year general fund monies totaling \$4,071,300 have been allocated to address long term maintenance items. One capital project that is planned for 2009 will address maintenance in the Quad II residence hall lobbies.

### Space Utilization

NMU's room scheduling software by *CollegeNet* (R25) has been utilized since the fall 2007 semester for majority of all class scheduling. This software automates the course and event assignment for classroom/meeting space across campus. In addition to the room scheduling software, NMU has purchased X25, a room utilization reporting component by *CollegeNet*, utilizing the scheduling data from R25. These two tools will allow the university to optimize course scheduling and evaluate/improve current space utilization.

During the summer of 2008 this system was used to evaluate the use of both general and department controlled classrooms in the Jacobetti Center. With the data provided by this system the university was able to consolidate classroom space within the facility and identify approximately 10,000 gross square feet to be adapted for other uses.

# Northern Michigan University

## Facility Assessment *(continued)*

Space Utilization reports for general use facilities have been developed, however, these reports reflect formally scheduled classes only. Events such as open lab hours are not reflected in the current reports, potentially reducing the actual classroom utilization rate. The university has established a Space Utilization Committee to help identify these deficiencies, provide the administration with space utilization information, and develop recommendations to effectively manage facilities.

Below is a summary of *General Use Classroom Utilization* by building for fall 2008 (Monday/Friday - 10:00am – 3:00pm)

<b>General Use Classroom Facilities Fall 2008</b>			
<b>Building</b>	<b># of Classrooms</b>	<b>Average Room Utilization (%)</b>	<b>Average Seat Utilization (%)</b>
JOHN X. JAMRICH HALL	32	60	57
LUTHER S. WEST SCIENCE BUILDING	14	64	65
WAYNE B. MCCLINTOCK BUILDING	6	58	50
RUSSELL THOMAS FINE ARTS	6	64	62
WALTER F. GRIES HALL	3	67	76
NEW SCIENCE FACILITY	2	60	58
WHITMAN HALL	2	58	68

*Utilization rates represent only credit classes formally scheduled by the Registers office. It does not reflect events or activities scheduled by other departments or student organizations.*

### **Space Distribution**

To help develop many of the building initiatives outlined in the Campus Master Plan the university classified all of its existing space and then compared our spatial distributions with similar institutions to identify opportunities for expansion. This benchmarking of existing space, and comparing it with peer institutions identified space deficiencies: study/library space and general use/student union space. This data supports the need voiced by students and staff and reaffirms many of the future building opportunities identified in the Campus Master Plan.

# Northern Michigan University

## Assessment of Campus Utilities System

### Water

NMU has 79,247 linear feet of water lines on campus and tries to update aging water mains during new construction, as permitted. Since 1996, 4,718 feet of water main has been replaced or installed in conjunction with various projects. Also, NMU, in cooperation with the City of Marquette, installed seven master water meters around the university to simplify and ease the reading required for university usage. In addition to these meters, the university calibrates and maintains all building meters and compares the readings to the Master Meters to verify the City's billing statements and help detect water loss. During the summer of 2005, NMU installed 987 feet of water main to serve the new Woodland Park Apartments.

### Steam

In 1996 NMU completed a major update to its aging main steam distribution system. A total of 27,078 linear feet of un-insulated line was replaced with 13,236 feet of new insulated steam and condensate lines, servicing all major academic buildings on campus. In addition, during the 2000 fiscal year approximately 500 feet of new line was installed to service the campus apartments on the east portion of campus. NMU installed 875 feet of new steam line servicing the Quad I and 175 feet servicing West Hall during the 2002-2003 fiscal year.

Recent upgrades to the Ripley Heating Plant include the replacement of one 30,000 lbs/hr and one 70,000 lbs/hr boiler with two new 70,000 lbs/hr units. These boilers were operational fall of 2006.



# Northern Michigan University

## Assessment of Campus Utilities System *(continued)*

### Electric

During 2003 the university installed approximately 61,000 feet of high voltage cable to update the primary conductors, replaced three oil-filled loop switches, and all existing 15KV switchgear had new fault indicators and fuses installed.

In 2006 the university replaced the original 40 year old electric switchgear. The change has increase system reliability, provided capacity to split the campus electrical distribution loops to meet future expansions, and provided better coordination with utility protection.

### Gas

All gas mains on campus are owned by the SEMCO gas company. NMU is responsible for all laterals. There is a total of 48,943 linear feet of gas line on campus.

### Phone

Existing campus phone lines (19,629 feet) were installed in 1985 by ATT Technologies. The buried lines are fiber optic and 24 gauge copper twisted pair. The current plant system is considered to be in very good condition with existing infrastructure for a fiber optic ring to provide a redundant path between the main server rooms on campus.

### Storm

On campus there is approximately 55,300 linear feet of storm sewer with the majority of the university's storm run off being directed to the city's system. A portion of the city's storm water is directed through university storm pipes entering campus from the southwest and exiting to the northeast. Design for all new construction tries to address storm water run off with the use of retention ponds and ground infiltration.

In 2008 as part of the Hunt Hall renovation project, as with the 2007 Van Antwerp project, the university reduced the amount of the rain water run off entering the City storm water system by adding hipped roofs to the facility and shedding rain water onto a grassed, landscape area. This reduced the water entering the city storm system by approximately 400,000 gallons annually.

# Northern Michigan University

## Assessment of Campus Utilities System *(continued)*

### Sanitary

There are 43,332 feet of sanitary sewer lines on campus. Aging sanitary sewer lines are updated with new construction, as permitted. During the 2004 construction season, a section of aging sewer pipe and three new sanitary manholes serving the new Student Services Center, the newly renovated Thomas Fine Arts building, and the new Art and Design addition were replaced/installed to help alleviate an existing maintenance problem of an aging line, and to allow access to an inaccessible section of pipe. During the summer of 2005, 939 feet of new sanitary sewer was installed to serve the new Woodland Park Apartments.

<u>UTILITY SYSTEM</u>	<u>NEED YEAR</u>	<u>ESTIMATED COST</u>
Water System	4	\$160,680
Steam Distribution	3	\$2,142,400
Storm Drain Mains	5	\$61,800
Sanitary Sewer Mains	2	\$160,680
<b>Utility System Total</b>		<b><u><u>\$2,525,560</u></u></b>

# Northern Michigan University

## Assessment of Campus Infrastructure

### **Roadways** (3.6 miles)

#### **Improvements:**

The last road improvement was completed in 2003 with over 3,800 feet of new roadway being constructed, including curb and gutter and storm sewer by the Michigan Department of Transportation. This project was funded through a Michigan Institutional Roadway (MIR) grant and completed the road network encompassing the university's Recreation and Sports Complex.

#### **Conditions:**

Because of the northern proximity of NMU and the harsh winter climate, the campus roadway structures endure severe exposure and subsequent deterioration and damage as a result of the operation of snow clearing equipment. It can be anticipated that significant amounts of asphalt resurfacing will be required in order to maintain the roadways.

#### **Areas Requiring Maintenance:**

Several areas around the campus are beginning to show signs of deteriorating pavement but are not in the condition requiring immediate repairs within the next year. The roadway to the northwest from the Lee Drive and Seventh Street intersection past the driveway entrance into Lot #28 will need to be paved in the next several years. These areas have superficial cracks in the pavement that will worsen over time as a result of the harsh winters. The areas will need to be repaired by filling potholes with asphalt patch and crack sealant, and select areas of paved surface may be scarified where necessary to improve drainage patterns. The entire pavement should receive a 2" asphalt surface course and new striping.

Over the next six to ten years, it is expected that additional sections of the campus' asphalt road network will have to be replaced as a result of normal wear and the harsh winter environment. These areas are expected to crack requiring sealant and patchwork before applying the new surface wearing course. It is expected that at least one-half of all campus roadways will need to be repaired and resurfaced within the next ten years. Along with the replacement of the road surface, a significant amount of roadside concrete curb and gutter will also have to be replaced and/or repaired.

# Northern Michigan University

## Assessment of Campus Infrastructure *(continued)*

### Parking (6,877+ spaces total)

#### **Improvements:**

Current parking lot conditions on campus range from paved parking with curb and gutter to unimproved gravel lots. During the 2004 construction season Lots 28 and 62 were re-constructed to serve the newly renovated Student Services Building, Learning Resources Center, and the Fine Arts complex. These two parking lots have been dedicated to faculty and staff to reduce vehicle turnover and help eliminate vehicular and pedestrian conflicts in the core of campus. During the summer of 2006 a new 207-space parking lot was completed as part of the new Woodland Park Apartments and a portion of Lot 15 was resurfaced.

#### **Conditions:**

Because of the northern proximity of the university, significant amounts of snowfall occur on campus each year. As a result of the harsh winter climate, the campus hardscape structures endure more severe exposure and subsequent deterioration and damage as a result of the operation of snow clearing equipment. The streets and sidewalks are cleared of snow and ice before classes begin each morning. With the average annual snowfall generally being above 150 inches, the clearing of snow from sidewalks and streets are a top priority of the campus operations staff. As the sidewalks crack from the effect of freeze and thaw, the surfaces become uneven, and the scraping of the ice and snow causes more and more structural damage. The typical deterioration of the hardscape structures is accelerated as a result of the harsh winter environment.

Lot #12 (Cohodas) is in the worst condition, followed by Lot #14 (Tracy Avenue).

# Northern Michigan University

## Assessment of Campus Infrastructure *(continued)*

### Sidewalk

There is 13.95 miles of sidewalk on campus. All new sidewalks are reinforced concrete, and designed 10 feet wide to accommodate service vehicles and snow removal traffic. In 2004, in conjunction with the Student Services Parking Lot project, approximately 2,500 feet of sidewalk was replaced between the Academic Mall and the corner of 7<sup>th</sup> Street and Tracy Avenue. Despite this replacement there are still a number of walks that do not meet the existing campus standard or are so badly deteriorated that they are in need of replacement. Several sidewalks on campus do not meet current ADA or MBFD guidelines. There are also several areas that currently are not paved, which require a finished surface in order for the maintenance crews to be able to keep those walks clear of snow in the winter.

Several sections of the concrete sidewalk around the campus have cracked, resulting in heaving or sunken sidewalk sections causing uneven settlement at the joints or crack lines. These areas are beginning to become minor trip hazards and are showing signs of deterioration associated with snow plowing, freeze/thaw cycling, and water infiltration. Sidewalks in the vicinity of Spooner Hall and the intersection of Seventh Street and Lee Drive need replacement. Two other areas exist on campus that presently either do not have a concrete sidewalk or the existing sidewalk is not adequate for the conditions.

The campus standard for sidewalks is a 10 foot wide concrete walk. The concrete surface is preferred over asphalt for the durability when scraping snow and ice in the winter months. Within the next two to five years, existing asphalt sidewalks on campus will need to be reconstructed with the campus-standard width geometry and materials so the snow plows can access these walks for clearing and maintaining. The existing walk from Carey Hall east to Waldo Street for accessing the Berry Events Center/Physical Education Instructional Facility/ Superior Dome area is planned for replacement with concrete. During the summer of 2008 approximately 180' of asphalt sidewalk was replaced with 10' wide concrete sidewalks at the Superior Dome.

# Northern Michigan University

## Assessment of Campus Infrastructure *(continued)*

Over the next six to ten years it is expected that additional sections of the campus' concrete sidewalk network will have cracked, resulting in heaving or sunken sidewalk sections causing uneven settlement at the joints. These areas will become trip hazards as a result of the deterioration associated with snow plowing, freeze/thaw cycling, and water infiltration. It is expected that at least one-half of all sidewalks on campus will need to be replaced over the next decade.

### Network

Over the next six to ten years, as new buildings are added, existing buildings are remodeled, or if there is a need for increased networking performance, data, fiber strands, wiring cable, and wireless access points will be replaced. The majority of the campus currently has 4 single-mode fiber strands and 12-60 multi-mode fiber strands connecting each building, depending on its data requirements. In turn, each individual building is wired internally with Cat 5, Cat 5e, or Cat 6 cable depending on when the cable was installed; and each individual building also has 802.11 abgn wireless access points installed.

For all new construction, remodeling, or networking redesign, data, fiber, wiring cable, and wireless access points will be installed as follows: Buildings will be connected with an increased number of strands of single-mode fiber to facilitate 10 Gigabit Ethernet, data wiring cable will be Cat 6 or better quality, and wireless access points will be 802.11abgn or 802.16e WiMax.



# Northern Michigan University

## Building Bonds

All bonds issued by the university are General Revenue Bonds. The interest on Revenue Bonds are primarily payable from General University Revenue. Total General Revenue Bonds payable are summarized as follows:

<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2009	3,405,000	5,248,954	8,655,963
2010	3,545,000	5,077,624	8,624,634
2011	3,585,000	4,923,553	8,510,564
2012	3,650,000	4,788,619	8,440,631
2013	<u>3,720,000</u>	<u>4,652,256</u>	<u>8,374,269</u>
Total Five Years	\$17,905,000	\$24,691,006	\$42,596,006
Thereafter			
2014-2018	20,810,000	20,830,128	41,640,128
2019-2023	24,935,000	15,365,138	40,300,138
2024-2028	22,085,000	9,536,100	31,621,100
2029-2033	17,655,000	4,593,981	22,248,981
2034-2038	9,600,000	1,036,753	10,636,753
2039	<u>595,000</u>	<u>14,875</u>	<u>611,914</u>
Total	<u>\$113,585,000</u>	<u>\$76,067,981</u>	<u>\$189,665,075</u>
Less: Deferred amount on refunding, net	(\$4,972,813)		
Less: Unamortized re-offering premium	<u>\$2,068,029</u>		
<b>Total</b>	<u><u>\$110,680,216</u></u>		

Buildings currently obligated to the State Building Authority and lease terms are as follows:

### **Glen T. Seaborg Science Complex Renovation and Addition**

- Phase 1 100% obligated Expires 35 years from March 1, 2001 unless earlier terminated
- Phase 2 100% obligated Expires 35 years from November 1, 2001 unless earlier terminated

### **Heating Plant Addition/Services Building**

- 100% obligated Expires 35 years from February 1, 1997 unless earlier terminated

### **Fine and Practical Arts Project - Art and Design North and Russell Thomas Fine Arts**

- 100% Obligated Expires 35 years from November 1, 2005 unless earlier terminated

### **Student Services Building Project**

- 100% Obligated Expires 35 years from November 1, 2005 unless earlier terminated

*Five Year Capital Outlay Plan*

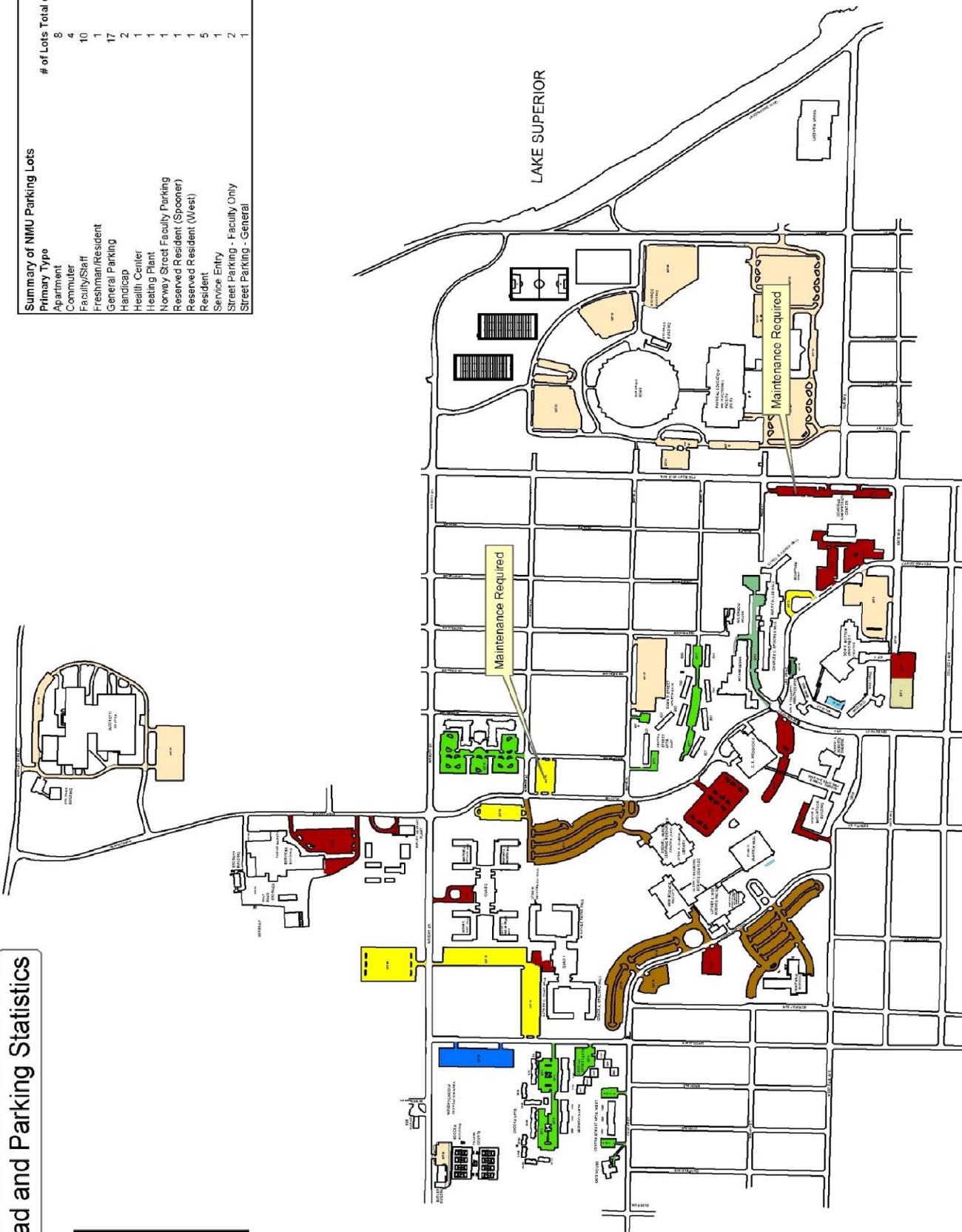
# University Road and Parking Statistics

**Legend**

Apartment	Green
Commuter	Blue
Faculty/Staff	Red
Freshman/Resident	Orange
General Parking	Yellow
Handicap	Light Blue
Health Center	Light Green
Reserved for Residents (Spooners)	Dark Green
Reserved Resident (West)	Light Yellow
Resident	Yellow

**Summary of NMU Parking Lots**

Primary Type	# of Lots	Total of Spaces
Apartment	8	609
Commuter	4	997
Faculty/Staff	10	1082
Freshman/Resident	1	180
General Parking	17	2757
Handicap	2	13
Health Center	1	9
Heating Plant	1	5
Norway Street Faculty Parking	1	45
Reserved Resident (Spooners)	1	123
Reserved Resident (West)	1	106
Resident	5	858
Service Entry	1	12
Street Parking - Faculty Only	2	46
Street Parking - General	1	35



Northern Michigan University

# Assessment of University Land

*Five Year Capital Outlay Plan*

# Northern Michigan University

## University Land

The university owns 684 acres comprised of 359 acres on the main campus, 120 acres known as the Longyear Forest in Marquette Township, and 206 acres near Mount Marquette in south Marquette. The accompanying map illustrates the property owned (main campus) by NMU, as well as property within the NMU boundaries that the university will need to acquire to fulfill future expansion plans. These properties are currently under private ownership as either commercial or residential use.

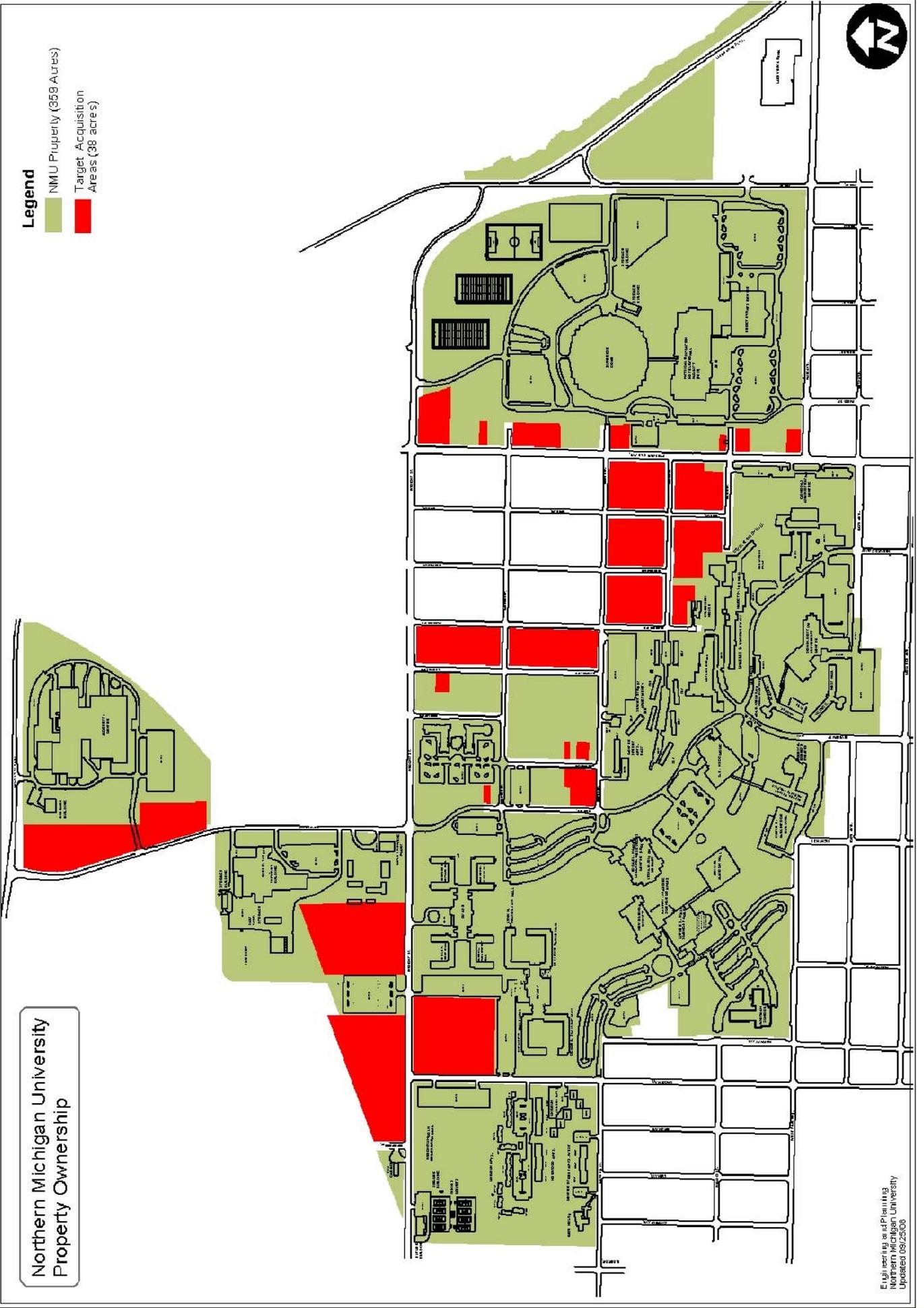


*Five Year Capital Outlay Plan*

# Northern Michigan University Property Ownership

## Legend

- NMU Property (359 Acres)
- Target Acquisition Areas (38 acres)



Northern Michigan University

**Section V**  
**Facilities**  
**Implementation**  
**Plan**

*Five Year Capital Outlay Plan*

# Northern Michigan University

## INTRODUCTION

Northern Michigan University (NMU) is one of the oldest public universities in the State of Michigan having celebrated our 109th birthday on September 19, 2008. Reaching the century milestone is an indication of our past success. Our physical plant was built in the 1960s and 1970s to meet the needs of our students of the past. To prepare our students for the future, many of NMU's east campus facilities need to be transformed to accommodate the programmatic needs of today and the continued development of a state-of-the-art learning environment.



### **Bio-Mass Fueled Combined Heat and Power Cogeneration**

A solid bio-mass fueled high pressure steam boiler with an extraction steam turbine will be constructed in an addition to the Ripley Heating Plant to generate steam and electricity for most of the buildings on NMU's campus. The goal is to increase energy efficiency, improve the reliability of electricity, utilize renewable resources, and diversify the fuel sources. As a result, NMU's operating costs will be reduced, new jobs will be created in the area, the dependency on foreign oil and natural gas will be reduced, a market will be created for small U.P. wood suppliers' waste wood products, and the environment will benefit because of improved efficiency. In addition the project offers an opportunity for our faculty and students to explore ways to create alternative energy through the construction of a research facility. Potential projects include researching an efficient gasification process to convert combustion gases into liquid fuels, investigating the growth of algae as a carbon emission capture system, and examining NMU's waste recycled paper as material for briquettes that can be burned as fuel for the boiler.

### **Sam M. Cohodas Hall**

The goal of this project is to create a high quality environment for providing resources and services that support the Northern Michigan University student. Further, new program functions will be introduced while efficiently utilizing the existing building structure. Programs include general-purpose and designated classrooms that will place students in closer proximity to faculty offices. Programs will be enhanced by increased interaction and improved availability of programs. Renovation should reflect an easily accessible environment for the student, faculty, administrators, and public users.

# Northern Michigan University

## INTRODUCTION *(continued)*

### **Academic Facilities Upgrade Project**

The university is continually assessing the operational and physical condition of the facilities on campus. In the latest review, four buildings constructed in the mid-sixties and seventies are in need of considerable upgrades. The goal of this project is to address maintenance items in these buildings, to include the Forest Roberts Theatre, McClintock Building, John X. Jamrich Hall, and the Physical Educational Instructional Facility. Correcting these items will have a positive effect on the operational efficiencies of the facilities and enhance the learning environment.

### **Renovations and Addition to the Learning Resource Center (LRC)**

This building was designed for university programs and needs that were in effect 30 years ago. Renovation of the space is key to the university's vision for development of a learning community for the 21st century, and addresses the teaching and learning technologies that were not available at the time the building was constructed. The renovation will also provide for increasing library needs and expansion of the university archives. The LRC also needs to be brought up to ADA code for barrier-free access and life safety.



# Northern Michigan University

Attachment A

## SUMMARY

### FISCAL YEAR 2010 CAPITAL OUTLAY PROJECT REQUEST

<b>PRIORITY</b>	<b>PROJECT</b>	<b>TOTAL PROJECT COST (in thousands)</b>
1	Bio-Mass Fueled Combined Heat and Power Cogeneration	\$65,000
2	Sam M. Cohodas Hall Renovation	\$18,400
3	Academic Facilities Upgrade Project	\$14,100
4	Renovations and Addition to the Learning Resources Center	\$65,600

*Five Year Capital Outlay Plan*

# Northern Michigan University

NORTHERN MICHIGAN UNIVERSITY  
FY 2010 CAPITAL OUTLAY PROJECT REQUEST  
Bio-Mass Fueled Combined Heat and Power Cogeneration  
Priority Ranking #1  
Project Total Cost (in thousands) = \$65,000\*

*\*Budget has been increased due to inflation.*

Is The Project a Renovation or New Construction?	Ren <input type="checkbox"/>	New <input checked="" type="checkbox"/>
Is There a 5-Year Master Plan Available? (Project will not be approved without a current 5-year plan on file with the State Budget Office)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Are Professionally Developed Program Statements and/or Schematic Plans Available Now?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Are Match Resources Currently Available?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Has the University Identified Available Operating Funds?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

## A. Project Descriptive Narrative

Northern Michigan University (NMU) operates the Ripley Heating Plant, which supplies steam to a majority of this campus' three million square feet of facilities. The primary fuel for the Heating Plant is natural gas, with fuel oil as backup. The Heating Plant is also the primary distribution point for electricity purchased from the Marquette Board of Light & Power (MBLP), a municipal generating station. Backup electrical power consists of emergency levels of individual diesel/natural gas generators in a minimum number of the university's major facilities.

In an ongoing effort to reduce our operating costs NMU contracted with HDR|Cummins & Barnard (HDR|CB) to study options to reduce our utility generation and distribution energy costs, utilizing a solution that has a positive impact on our environment. The recommended solution is a bio-mass fueled cogeneration combined heat and power (CHP) addition to the existing plant that would have a positive impact on our environment and the economy of the Upper Peninsula.

The combined heat and power cogeneration project would utilize a solid fuel fluidized bed (multi-fuel capable) high pressure boiler rated at 120,000-140,000 pounds per hour, capable of burning wood chips with coal as a backup fuel, integrated with a 7-10 megawatt extraction steam turbine capable of producing the required university's thermal and electrical needs.

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

### Request #1: Bio-Mass Fueled Combined Heat and Power Cogeneration *(continued)*

As part of the feasibility study, HDR|CB and Northern Michigan University worked with representatives of the MBLP in an effort to determine if it was advantageous to partner on the project. After extensive analysis it was determined that direct participation was not financially beneficial for either the MBLP or the university. The MBLP is supportive of the project and is willing to assist as needed with electrical generation, distribution, and solid fuel handling.

In addition to providing bio-mass generated heat and power for our campus, the project offers an opportunity for our faculty and students to explore ways to create alternative energy from U.P. wood with the addition of a small connected research facility building. The main focus of the research would be to develop an efficient gasification process that will convert gases obtained from the heating plant into liquid fuels such as butanol and propanol. These fuels are more energy efficient when burned in combustion engines than the traditional ethanol because of higher masses of hydrocarbon. This learning component of the project may serve as a national model for the extraction of biomass energy from regional wood resources. In addition, a project involving carbon capture from combustion emissions will be conducted with algae. Other sources of biomass for fuel for the boiler, such as waste recycled paper and other campus organic matter, will be examined for energy production and ease of storage and use. Processes and/or equipment developed from these projects may be of interest to other states and/or organizations that have access to woody resources and seek to change energy usage.

As a part of our due diligence, the university met with potential providers of wood fiber. The initial reaction from those attending was very positive. The proposed Plant would be able to burn wood chips and wood by-products of the Upper Peninsula wood products industry, for example, tree tops, sawdust, and bark. Discussion of costs of wood by-products and availability on a continuous basis confirmed the viability of this renewable resource as a reliable fuel source for the project.

The gross square footage of this project is approximately 31,500 square feet.

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

### Request #1: Bio-Mass Fueled Combined Heat and Power Cogeneration *(continued)*

The estimated construction start date for this project would be March 2010, with an estimated completion date of June 2012.

The estimated annual operating cost for this project is \$1,326,000, excluding fuel costs, supplemental/ standby power, and project debt service.

The estimated annual cost avoidance after debt service (over a 30 year period) to the university is at \$1,000,000 to \$1,900,000 ,depending on the mix of fuel.

#### B. Programmatic Benefit to Institution

This capital outlay project will allow Northern to reduce operating costs while creating a new learning environment to explore bio-energy.

The addition to the Ripley Heating Plant, to include a solid fuel boiler and steam turbine, will provide the maximum flexibility to the university, to burn the most economic fuel while ensuring an adequate supply of electrical power and thermal energy with increased reliability for the future. It will improve operational efficiencies and reduce overall costs for heat and power. The project will result in an operational cost avoidance in the face of rising, volatile fuel oil and natural gas markets.

The addition will incorporate the best available technology and will meet and exceed current Michigan Department of Environmental Quality Standards. This facility will be an example for the university and its students to showcase a bio-mass fueled combined heat and power cogeneration plant generating steam and electricity more efficiently, while meeting the most stringent environmental standards. It should encourage similar projects within the state.

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

### Request #1: Bio-Mass Fueled Combined Heat and Power Cogeneration *(continued)*

#### Economic Benefit to the State of Michigan

- C. The proposed capital outlay project will provide the following economic benefits to both the local community and the State:
- State of Michigan will benefit by the creation of 90-120 new jobs
  - Taxpayers benefit through research regarding enhanced biomass production that can be used to reduce the state's dependency on foreign oil and natural gas
  - The State of Michigan will benefit as small marginal wood suppliers will have a new regional market for their waste wood products
  - Taxpayers will benefit as the project will serve as a model to encourage others in the State to investigate and implement similar renewable resource site-specific projects, reducing the reliance on foreign fuel supplies
  - Taxpayers will benefit directly with access to advanced educational opportunities,
  - Michigan's environment will benefit because of the increased efficiency of the CHP Cogeneration technology in producing steam and electricity, thereby, reducing the amount of thermal energy emitted into the atmosphere and Lake Superior in the combustion and condensing process versus separate stand alone steam and electric generating stations
- D. Match Resources
1. Local and regional sources for project:
    - A. University reserves
  2. Bonding
  3. State appropriations

# Northern Michigan University

NORTHERN MICHIGAN UNIVERSITY  
FY 2010 CAPITAL OUTLAY PROJECT REQUEST  
Renovations to the Sam M. Cohodas Hall  
Priority Ranking #2  
Project Total Cost (in thousands) = \$18,400

- Is The Project a Renovation or New Construction? Ren X New \_\_\_
- Is There a 5-Year Master Plan Available? Yes X No \_\_\_  
(Project will not be approved without a current 5-year plan on file with the State Budget Office)
- Are Professionally Developed Program Statements and/or Schematic Plans Available Now? Yes X No \_\_\_
- Are Match Resources Currently Available? Yes X No \_\_\_
- Has the University Identified Available Operating Funds? Yes X No \_\_\_

## A. Project Descriptive Narrative

Located on the site of the original campus buildings, construction on the six-story Cohodas Building was completed in July 1975. The building contained most of the administrative offices, as well as student related support services departments. The original structure was named after a local produce entrepreneur and philanthropist, Sam M. Cohodas.

The renovation to the Sam M. Cohodas Hall will enhance the quality of services that support the students of Northern Michigan University by changing the use of the first four floors from administrative offices to academic classrooms and faculty offices. This change in use, including those relocated academic departments and classrooms, will have a positive effect on the operation and availability of programs to the general student population.

Two floors of the current six-story structure will be renovated to accommodate classrooms ranging from 690 square feet to 1,150 square feet. One of these classrooms will be a twenty-eight station computer lab specifically used by the Real Time Trading classes. This is a unique program and teaching opportunity where students learn about the financial markets through the use of special software. Students are online with the markets purchasing and selling stocks, bonds, etc. without actually spending real money.

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

### Request #2: Renovations to the Sam M. Cohodas Hall *(continued)*

Minor renovations will occur in departmental offices as a result of the program changes and efficiency due to incorporating classrooms and faculty offices.

Modifications within Administrative areas vary from technology upgrades supporting new programs, to relocation and expansion necessary to accommodate the projected student enrollments.

Upgrades and new programs shall be supported by the latest technologies not currently existing within the fabric of the structure. The facility has been maintained well and its basic structure and building envelope remain in good condition. However, the existing building support systems are outdated and in poor condition. With the change in use, the opportunity will allow the mechanical, electrical, and information technology systems be upgraded to today's standards. Based on today's barrier-free regulations and the Americans with Disabilities Act, the building requires renovation in the areas of accessibility and support facilities. Vertical circulation components, including stairways and elevators, do not meet today's standards and codes. Door hardware, access ways, signage, etc. also do not meet the requirements of today's programs.

The gross square footage of this project is approximately 104,000 square feet.

The estimated construction start date for this project would be June 2010, with an estimated completion date of August 2010.

The estimated annual operating cost for this project is \$592,000.

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

### Request #2: Renovations to the Sam M. Cohodas Hall *(continued)*

#### B. Programmatic Benefit to Institution

Northern Michigan University's (NMU) strategic plan includes the continued development of a learning community where students receive individualized attention in a high-tech learning environment. This learning environment will:

- meet student and employer needs of the information age
- promote the development of independent lifetime learners
- encourage student-faculty contact and collaboration
- provides access to technology, regardless of student's economic status
- build a stronger partnership with educators and community
- provide greater opportunities and course offerings for the student

Renovations to the Cohodas Hall support several new use and programmatic needs. Existing areas will be redeveloped to provide learning environments and support to academic programs and students. It will bring much needed general purpose classrooms in direct proximity of departmental and faculty offices.

#### C. Economic Benefit to the State of Michigan

The proposed capital outlay project will provide the following economic benefits to both the local community and the state:

- taxpayers will benefit directly with access to advanced educational opportunities
- taxpayers will benefit indirectly from the more highly educated students that are better prepared to make effective use of technology in the coming century
- State of Michigan benefits through the renovation and reuse of an existing facility, thus optimizing current campus facilities in lieu of extensive cost for new comparable facilities
- taxpayers will benefit from the additional capacity and opportunities for enrollment within the university

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

Request #2: Renovations to the Sam M. Cohodas Hall (*continued*)

### D. Match Resources

#### 1. Local and regional sources for project:

- A. Industry contributions
- B. NMU Foundation

#### 2. Bonding



# Northern Michigan University

NORTHERN MICHIGAN UNIVERSITY  
FY 2010 CAPITAL OUTLAY PROJECT REQUEST  
Academic Facilities Upgrade Project  
Priority Ranking #3  
Project Total Cost (in thousands) = \$14,100

Is The Project a Renovation or New Construction? Ren  New   
Is There a 5-Year Master Plan Available? Yes  No   
(Project will not be approved without a current 5-year plan  
on file with the State Budget Office)  
Are Professionally Developed Program Statements and/or  
Schematic Plans Available Now? Yes  No   
Are Match Resources Currently Available? Yes  No   
Has the University Identified Available Operating Funds? Yes  No

A. Project Descriptive Narrative

There are four buildings that have been identified that have urgent maintenance issues. Two of these buildings, the Forest Roberts Theatre and McClintock Building, were constructed in 1964, Jamrich Hall was completed in 1969, and the Physical Education Instructional Facility was finished in 1976. These buildings are used for academic purposes, providing general use classrooms, lecture halls, physical education instructional areas, and communication and performing arts area.

The academic facilities upgrades include the replacement of HVAC systems, electrical upgrades, handicap accessibility items, outside brick replacement, and fire alarm system enhancements.

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

### Request #3: Academic Facilities Upgrade Project *(continued)*

Gross square footages of this project by building:

Forest Roberts Theatre	30,704 square feet
McClintock Building	33,575 square feet
John X. Jamrich Hall	126,112 square feet
Physical Education Instructional Facility	179,627 square feet

The estimated project start date would be June 2009, with an estimated completion date of August 2010.

The estimated annual operating cost for this project by building is:

Forest Roberts Theatre	\$190,000
McClintock Building	\$178,000
John X. Jamrich Hall	\$783,000
Physical Education Instructional Facility	\$970,000

#### B. Programmatic Benefit to Institution

This capital outlay project will continue the development of a learning community for the 21st century. The university's goal is a learning environment that:

- meets student and employer needs of the information age
- promotes the development of independent lifetime learners
- encourages student-faculty contact and collaboration
- provides access to technology, regardless of student's economic status
- builds a stronger partnership with educators and community
- provides greater opportunities and course offerings for the student

Improvements made in these buildings will enhance the learning environment and increase the operational efficiency of these facilities.

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

### Request #3: Academic Facilities Upgrade Project *(continued)*

#### C. Economic Benefit to the State of Michigan

The proposed capital outlay project will provide the following economic benefits to both the local community and the state:

- taxpayers will benefit directly with access to advanced educational opportunities
- taxpayers will benefit indirectly from the more highly educated students that are better prepared to make effective use of technology in the coming century
- State of Michigan benefits through the renovation and reuse of an existing facility, thus optimizing current campus facilities in lieu of extensive cost for new comparable facilities

#### D. Match Resources

1. Local and regional sources for project:
  - A. Industry contributions
  - B. NMU Foundation
2. Bonding



# Northern Michigan University

NORTHERN MICHIGAN UNIVERSITY  
FY 2010 CAPITAL OUTLAY PROJECT REQUEST  
Renovations and Addition to the Learning Resources Center  
Priority Ranking #4  
Project Total Cost (in thousands) = \$65,600

Is The Project a Renovation or New Construction? Ren X New      
Is There a 5-Year Master Plan Available? Yes X No      
(Project will not be approved without a current 5-year plan  
on file with the State Budget Office)  
Are Professionally Developed Program Statements and/or  
Schematic Plans Available Now? Yes X No      
Are Match Resources Currently Available? Yes     No X  
Has the University Identified Available Operating Funds? Yes X No    

## A. Project Descriptive Narrative

The Learning Resources Center was constructed in 1966. The building was designed for university programs and needs that were in effect 40 years ago. Those needs included temporary office space for faculty which were located on the ground floor of this building. The intent was to expand the library collection to the ground floor when necessary and to create faculty offices elsewhere on campus. During the last ten years, a majority of faculty have been relocated on campus. As the last of the faculty have moved from temporary offices in the Learning Resources Center, we renovated the vacated space to create a student gathering space, expanded writing center, a satellite tutoring program, consolidated the Academic Computing operations, and expanded the computer server space. These renovations are temporary in nature until the major building renovation can take place.

Renovation of the facility is key to the university's vision for development of a learning community for the 21<sup>st</sup> century. The renovation will address the teaching and learning technologies that were not available at the time the building was constructed, and which are necessary to prepare students and K-12 teachers for today and the future global economy. These technologies include:

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

### Request #4: Renovations and Addition to the Learning Resources Center *(continued)*

- an interactive and multimedia instructional development center where faculty can design electronic learning environments
- a learning classroom with capabilities to foster cooperation, communication, efficiency, and greater access to students at a distance and on-site
- a help and service center where walk-in technical assistance can be provided
- infrastructure for K-12 and higher education cooperative learning network
- work areas with networked ports, wireless access and power outlets for interactive research with library holdings and remote information resources

The renovation will also provide for expanded library holdings and expansion of university archives. In order to comply with the FCC's digital broadcasting mandate, the university upgraded the WNMU-TV's master control and transmitter facilities this past year. However, the university's production studios, graphics and scene shop, post production suites, announce booth and audio/video mixing facilities remain analog and are original to the building. Studio lighting equipment has been found to contain asbestos and with dimmer equipment is no longer supported by the manufacturer. Classroom space needs to be incorporated with the production facilities to meet the teaching mission of the university and the studios require updating to meet the needs associated with a fully digital-compliant broadcast center.

The Learning Resources Center also needs to be brought up to today's standards for ADA barrier free access and life safety. The building requires extensive work, which includes window replacement, masonry repair, and a complete renovation of the HVAC systems. This project will additionally upgrade and renovate the building to meet current architectural, mechanical, electrical codes, and standards.

The estimated gross square footage for this project is 290,300.

The estimated construction start date for this project would be May 2010, with an estimated completion date of December 2011.

The estimated annual operating cost for this project is \$1,649,000.

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

Request #4: Renovations and Addition to the Learning Resources Center (continued)

### B. Programmatic Benefit to Institution

Northern Michigan University's (NMU) strategic plan includes the continued development of a learning community where students receive individualized attention in a high-tech learning environment. This learning environment will:

- meet student and employer needs of the information age
- promote the development of independent lifetime learners
- encourage student-faculty contact and collaboration
- provide access to technology, regardless of student's economic status
- build a stronger partnership with educators and community
- provide greater opportunities and course offerings for the student

These renovations will provide students needed exposure to enhanced teaching and learning technologies that will better prepare them for the highly competitive global job market, where technology is continuing to change at an exponential rate. In addition, expansion of the university's library holdings are necessary to support academic programs, to maintain accreditation standards, and to provide the resources necessary for students to achieve their learning goals. Enhanced distance, multimedia, and interactive learning resources will increase access to location bound students in remote areas of the Upper Peninsula.

### C. Economic Benefit to the State of Michigan

The proposed capital outlay project will provide the following economic benefits to both the local community and the state:

- taxpayers will benefit directly with access to advanced educational opportunities
- taxpayers will benefit indirectly from more highly educated students that are better prepared to make effective use of technology in the coming century
- ability to provide Upper Peninsula K-12 teachers and administrators with enhanced in-service educational opportunities
- enhanced facilities for document preservation center would benefit taxpayers throughout the state

# Northern Michigan University

## FY 2010 CAPITAL OUTLAY PROJECT REQUEST

Request #4: Renovations and Addition to the Learning Resources Center (*continued*)

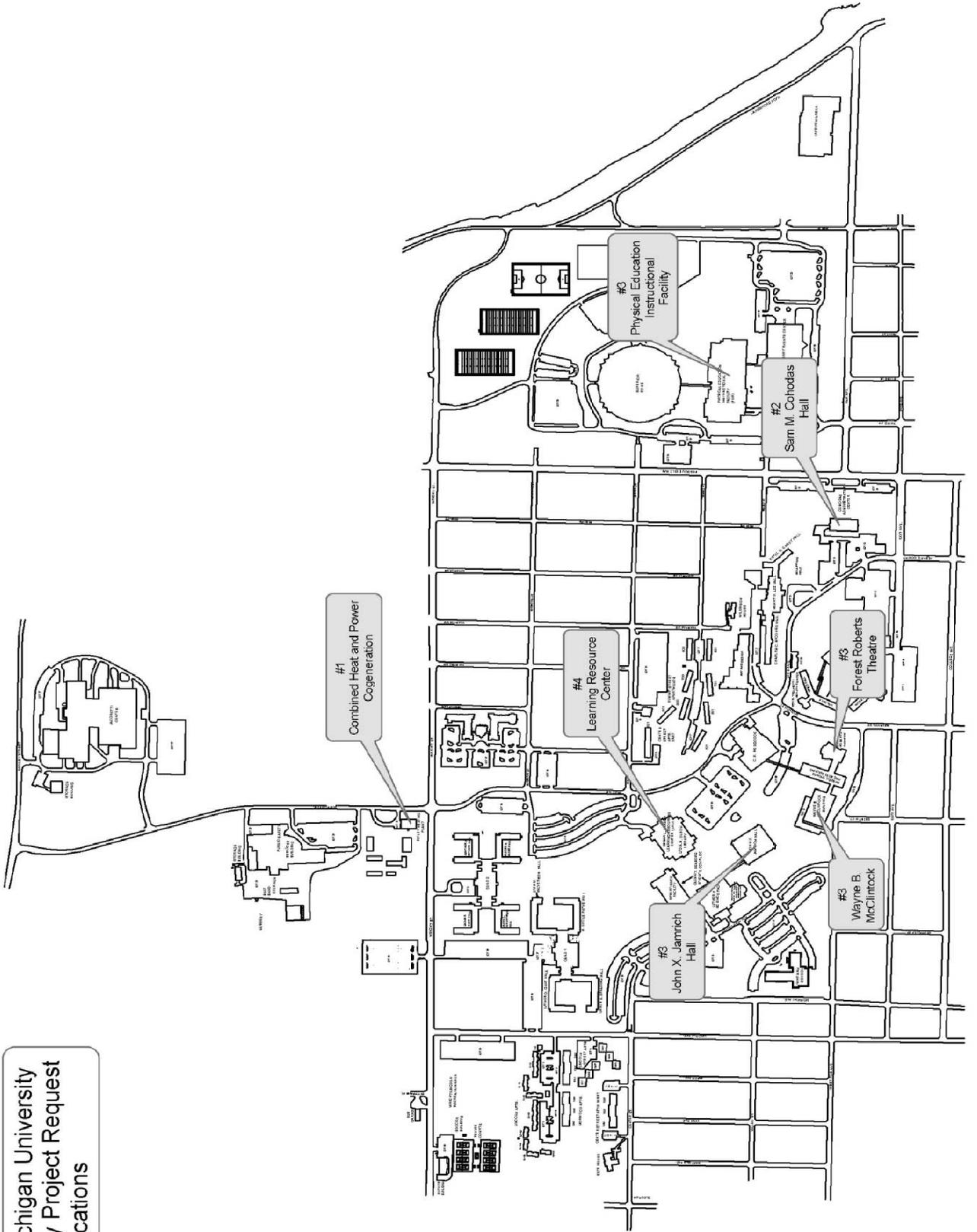
### D. Match Resources

Federal sources available for project:

1. U.S. Department of Commerce  
National Telecommunications Information Administration (NTIA)  
Public Telecommunications Financial Planning (PTFP)
2. U.S. Department of Commerce  
Telecommunications Information and Infrastructure Assistance Program
3. Corporation for Public Broadcasting (CPB)  
Rural Stations Grant Fund Pool for Radio
4. Local and Regional Sources for project:
  - A. Industry contributions
  - B. NMU Foundation
5. Bonding



# Northern Michigan University Capital Outlay Project Request Locations



# Northern Michigan University

## Status of “In-Progress” State Building Authority Projects

NMU does not currently have any State Building Authority Projects.



*Five Year Capital Outlay Plan*

# Northern Michigan University

## UNIVERSITY PROJECTS

**Completed From November 1, 2007 to November 1, 2008**

**With a Total Cost Between \$500,000 - \$3,000,000**

### WNMU-TV Master Control Digital Upgrade

The WNMU-TV's analog master control system has been converted to digital. The project has increased programming to the region through simultaneous broadcasting of independent standard definition (SD) and high definition (HD) signals. The digital master control system has permitted the broadcast of two SD and one HD program streams simultaneously. Tripling the program transmission capability available to WNMU-TV has not only facilitated a tremendous boost in educational content but has also allowed the station to add much-needed local program content to our digital streams. Additionally, WNMU-TV, as the designated primary Emergency Alert Service (EAS) for the region, has added stand-by power generator capabilities to this system allowing the station to ensure the continuous transmission of EAS messages as needed. This project completes one of three major components of the station's digital conversion master plan to assure its compliance with the FCC's digital conversion mandate by the end of 2009 and continue the delivery of high-quality local programming. These projects include the purchase and installation of a digital master control (as described herein), the purchase and installation of a full-power digital transmitter, and the renovation of production facilities to full digital. The project budget for this phase of the digital conversion was \$1,785,385. This project was originally scheduled to be completed prior to November 1, 2007 but because of delays the actual completion was in February 2008 with the digital broadcasting going live on April 1, 2008.

# Northern Michigan University

## UNIVERSITY PROJECTS

**Projects Planned November 1, 2008 to November 1, 2009  
with a Total Cost Over \$1,000,000**

### WNMU-TV Digital Transmission and Production

The Phase II project of Northern Michigan University's broadcast digital conversion replaces analog television broadcast transmission equipment. There are three main components associated with the project:

- Replacement of WNMU-TV's studio-transmitter microwave link (STL) radios with digital equipment, aligning the microwave system, and verifying the 30-mile transmission path with a proof of performance test
- Removal of the station's analog transmitter and installing a digital channel 13 transmitter
- Replacement of WNMU's original, 35 year-old, broadcast antenna and feed-line

In addition to ensuring that NMU's broadcast operation complies with the federally mandated February 2009 digital conversion deadline, this replacement of NMU's transmission system renews an aging distribution infrastructure that is prone to age related failures. As an added benefit, the newer, digital transmitter reduces power consumption by nearly 50% saving energy and lowering operating costs. The project budget is \$1.4 million which the Corporation for Public Broadcasting has provided 75% of the funding through a matching Digital Conversion Grant. This phase will be completed by February 2009.

Phase III involves renovating WNMU's production facilities to digital and was recently fully funded by a \$634,000 Rural Utility Services grant. This project will be finished by August 2009 and completes the station's digital conversion.

### Quad II Residence Hall Lobbies Renovation

Quad II is a four residence hall complex – Hunt, Van Antwerp, Magers and Meyland Hall – originally constructed in 1966 and 1967. All four of these residence halls have been renovated – one building over each of the last four summers. To completely upgrade these student housing facilities, the two lobbies (one for Magers and Meyland Halls and the other for Hunt and Van Antwerp Halls) will be renovated to include new service centers, upgraded rest rooms, new entryways, replacement windows, wall finishes, ceilings, lighting, floor finishes and mechanical system upgrades. The project budget is \$1,750,000.

# Northern Michigan University

## MAINTENANCE PROJECTS 2009 to 2014 With a Total Cost Over \$1,000,000

As a result of the Facility Condition Analysis the following projects have been identified:

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
Jacobetti Roof Replacement		\$1,500,000					\$1,500,000
Superior Dome Turf Replacement	\$1,300,000						\$1,300,000
Superior Dome Roof Replacement				\$4,500,000			\$4,500,000
Access Control State buildings*							TBD
Mass Notification*							TBD
Fire Alarms Residence Halls*							TBD
Fire Alarms State Buildings*							TBD
Total							<u>\$7,300,000</u>

*\*Schedule and projects costs to be determined*

# Northern Michigan University

## Future University Projects

Northern Michigan University (NMU) completed a 12 month update to its Campus Master Plan in May of 2008. This plan helps identify growth opportunities, spatial efficiencies, land utilization, and community/business partnerships to help accommodate the projected enrollment growth of 10,400 students. Below is a brief description of various initiatives that are either a result of the update process or support the theme of the plan.

### **Future Student Housing Projects**

With the completion of the four residence halls connected to Quad II, the university is reviewing the other housing complexes, both residence halls and apartments, to determine how best to meet the future needs of students. The possibilities being discussed are renovating some or all of the remaining six residence halls and renovating or replacing aging apartment complexes. In considering all options, the university's overall bed count would remain about the same.

### **Mixed Use Development**

A Mixed-Use development to support student commercial activities and enhance the image of the university adjacent to campus. This development is envisioned as a vibrant living-learning district (retail and housing) and partnership opportunity between the university, City of Marquette, and a third party development entity. A market/economic study will be undertaken to determine the economic, demographic, and market opportunities for this use project.

### **Student Union**

A need expressed by students and staff during the 2008 Campus Master Plan update was a centrally located student union. This need was also noted as a space deficiency when the university's net assignable square footage was compared with peer institutions. Possibilities regarding location and potential services/occupants for this facility are being discussed with student organizations and staff.

### **Bike Paths**

As part of the Campus Master Plan Update a comprehensive review of many existing studies related to campus planning were reviewed including the Bicycle Feasibility Study conducted in 2001. The 2008 Campus Master Plan illustrates a number of potential paths and identifies key design principles for pedestrian networks.

# Northern Michigan University

## Future University Projects *(continued)*

### **Wayfinding**

One of the initiatives identified in the 2008 Campus Master Plan is to develop and implement a comprehensive wayfinding and signage system. This project is intended to provide a design for a comprehensive wayfinding system that clearly identifies existing campus entries and orients/directs both vehicular traffic and pedestrians (students, faculty/staff, and visitors) to facilities and amenities at Northern Michigan University. These amenities include campus entries, circulation routes, academic facilities, student support facilities, parking areas, recreational facilities, conference facilities, museum space, and theater space.

### **Landscape Master Plan**

The university has been investigating ways in which it can lower maintenance costs through the use of different landscape material. A private consulting firm was retained to inventory the university's existing landscape, identify areas where low maintenance landscape would be appropriate, conduct an analysis of cost savings, and develop recommendations for phased construction. A test plot has been constructed to showcase the plantings that are being considered in the master plan. The plot development will be evaluated over the next few growing seasons to determine the level of attention required for establishment of the plantings and to review the appearance throughout the process.

### **East/West Corridor - NMU/Marquette General Hospital Study**

A joint study between NMU and Marquette General Hospital was conducted to review the possibility of a joint parking deck and the connection of Kaye Avenue to Fair Avenue. This connection will provide an east-west corridor link that will benefit the City, Hospital, and University. This connection will also allow the University to eliminate 7<sup>th</sup> Avenue, helping to eliminate traffic congestion on campus.

### **University Center**

MGH and the university are participating in a collective study to determine possibilities for joint use of this facility for educational, medical and conference space. This project will include renovations associated with inner building office moves and future tenant build-outs. Maintenance items, such as the replacement of windows, doors, roof, cooling tower, plumbing fixtures, exit lighting, etc., will be completed.

# Northern Michigan University

## **Future University Projects** *(continued)*

### **Jacobetti Center Technology Center**

Northern will be developing a Business and Industry Center in the Jacobetti Center. This is a one-stop service center for new business ventures designed to help diversify and revitalize the state's struggling economy and support student internships and entrepreneurial academic programs, speed the commercialization of university research and promote a culture of "entrepreneurial risk-taking." This project is in partnership with Northern Initiatives, a non-profit community development corporation and the Lake Superior Community Partnership.

### **Superior Dome Locker Rooms**

The university is evaluating the feasibility of concentrating all athletic department offices and the construction of new locker rooms for Track, Cross Country Running, and Cross Country Skiing in the Superior Dome. This construction will allow all athletic offices to be consolidated into one location and provide dedicated locker room space for each of the teams mentioned above.

### **Lee Hall Renovation**

Lee Hall is the second oldest building on campus. Renovations are planned to create an Alumni/Visitor Welcoming Center, NMU Club, University/Upper Peninsula History Museum, and departmental offices for the NMU Foundation. The ballroom on the second floor will be restored and a facility for catering services will be constructed. The construction and reuse of this facility will bring recognition to the university, its heritage, and participation in the community.

### **Physical Educational Instructional Facility Pool**

The university is developing conceptual designs for a Natatorium addition to the PEIF for swimming, diving and related amenities. The building should reinforce the architecture and character, create visibility from Presque Isle Avenue, and embrace future adjacent mixed-use elements. This addition will also address increased maintenance issues with the existing pool, meet current state and federal regulations, and NCAA requirements.

### **Carey Hall Renovation**

Carey Hall is the oldest building on campus and is primarily used as transitional space for displaced departments during building renovation projects. The future use of Carey Hall is currently being explored.

# Northern Michigan University

## **Future University Projects** *(continued)*

### **Sawyer Academic Center**

NMU is in preliminary discussions with Marquette County about renovating an existing facility at Sawyer International Airport to accommodate both the NMU Aviation Maintenance Associate degree program and other NMU general education courses. The possibility of incorporating the AMR Maintenance Academy for new hires is also being negotiated with American Eagle, a subsidiary of American Airlines.

### **Dining Services Study**

The Dining Services program has undergone an extensive study, focusing on operations, management and facility needs. The findings were formulated into a plan that will be utilized to continue facility planning for future student growth and the need to modify existing and provide new service locations to meet the growth demand.

### **Bookstore Study**

NMU's Bookstore operations were evaluated by independent consultants to analyze the overall efficiency, benchmark it to the service level and historical financial performance, and to provide a long range plan to improve the level of return and overall service. The plan outlines strategic initiatives for relocation of the Bookstore to align with the campus growth pattern, in a location proximate to the academic core.

### **Quad II**

Renovate area to enhance student life and include a bookstore, food emporium, student lounge, programming rooms, meeting and study space, and satellite student recreation center. Also, the Hunt/Van Antwerp and Magers/Meyland lobbies will be renovated.



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