Aligned Institutional

Master Facility Plan 2014

for

Bemidji State University

Northwest Technical College

LHB

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I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly licensed architect under the laws of the state of Minnesota.

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Executive Summary

Introduction

Northwest Technical College and Bemidji State University were designated "aligned" institutions by the MnSCU Board of Trustees in 2003. Because of the alignment both institutions are required to update their existing campus facility plans into a combined plan with shared institutional, as well as individual, priorities.

Within this combined master facility plan, information pertaining exclusively to Bemidji State University is designated with a green background and information pertaining exclusively to Northwest Technical College is designated with a blue background, as shown below.

BSU	NTC

Planning Process

This combined master facility plan for Northwest Technical College and Bemidji State University was completed in the spring of 2014 and is considered an update of facility plans completed in 2007 by LHB. Many of the findings and recommendations of the previous plans remain valid and are included in this document along with new recommendations for the growth, renewal, and enhancement of the two campuses.

The development process for these master plans consisted of multiple meetings with a combined advisory committee representing both institutions. This committee was charged with reviewing and evaluating the immense amount of information regarding the respective campus infrastructure, academic program needs, previous facility plans and master academic plan, as well as consulting various stakeholders within the community. Meetings were also held with the City of Bemidji and the University Alumni Center to discuss their particular needs and concerns.

Due to the size and complexity of the aligned campuses, additional information was collected through two different methods. The first was through administering three surveys (one each for faculty/staff, students, and the surrounding neighborhood) via the campus intranet. Information collected via this survey is summarized in Section Three. The second collection method was by means of "face-to-face" meetings with various stakeholders representing different programs and departments on campus. The results of these meetings are also included in Section Three.

This plan, by recommendation of the MnSCU Board and the planning consultants, should be reviewed and updated in approximately five years in order to assess subsequent campus development, review asset preservation requirements, and establish new facility enhancement priorities. It is also important to assess changed economic conditions, educational and employment trends, demographic projections, political forces and evolving pedagogical philosophies.

First Faculty at Bemidji State Teacher's College, 1919 Collection Minnesota Historical Society

Summary of Master Plan Goals - BSU

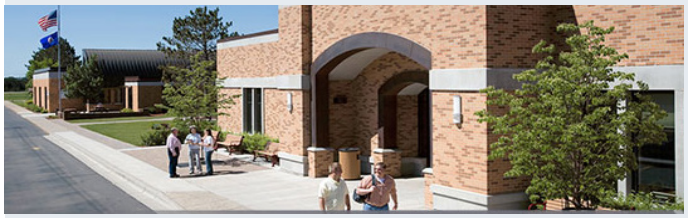
As a result of multiple meetings with staff, faculty, the community, and administration, the campus master plan for Bemidji State University established the following primary goals:

1. Improve access to parking
2. Identify potential property for acquisition
3. Create stronger campus entry points
4. Develop a more “centered” campus
5. Enhance campus boundaries
6. Identify top HEAPR projects
7. Identify top capital improvement projects
8. Improve environmental quality
9. Consolidate the facilities department
10. Create a more pedestrian oriented campus with a stronger connection to the lake
11. Demolish outdated and underutilized facilities
12. Support the university’s academic master plan

Summary of Master Plan Goals - NTC

As a result of multiple meetings with staff, faculty, the community, and administration, the campus master plan for Northwest Technical College established the following primary goals:

1. Overcome the “K-12” building aesthetic
2. Develop a presence on County Road 50
3. Resolve parking shortages
4. Clarify the location of the campus “front door” and make it easy to identify
5. Improve landscaping
6. Define campus boundaries
7. Enhance storage and receiving facilities
8. Screen trade yards
9. Heighten presence of trade programs
10. Create site design with evident sustainable strategies
11. Meet student needs for community and services
12. Develop a facilities framework for innovative programs and services
13. Address deferred maintenance issues immediately
14. Make recommendations for annex property



Bemidji State University

Northwest Technical College

Campus Space Use Snapshot - BSU

Use Type	SF	%
1. Classroom	227,540	14.7%
2. Labs	121,985	7.9%
3. Office	192,003	12.4%
4. Study	71,462	4.6%
5. Special Use	200,709	13.0%
6. General use	136,205	8.8%
7. Support	187,608	12.2%
8. Residential	406,134	26.3%
TOTAL	1,506,284	

Space Use and SF data from B3 Benchmarking

Campus Space Use Snapshot - NTC

Use Type	SF	%
1. Classroom	32,400	30.3%
2. Labs	11,866	11.1%
3. Office	19,020	17.8%
4. Study	3,310	3.1%
5. Special Use	30,703	28.7%
6. General use	7,364	6.9%
7. Support	2,340	2.2%
8. Residential	n/a	0.0%
TOTAL	107,003	

Space Use and SF data from B3 Benchmarking

Vision, Mission, and Guiding Documents

MnSCU Vision and Mission Statements

Minnesota State Colleges and Universities will be the preferred pathway to higher educational opportunities and a valued partner in statewide economic development and community building.

The uniqueness and diversity of the Minnesota State Colleges and Universities and the power of a unified system will enable Minnesota State Colleges and Universities to excel as the most accessible, highest quality, and innovative education provider in the region.

The system's mission is to provide the diverse citizens of Minnesota the benefits of high-quality, accessible, future-oriented higher education; relevant research; and community service.

The Minnesota State Colleges and Universities system of diverse institutions offers unequaled breadth, variety, and quality of educational opportunities across the state. Collectively, and in partnership, the system offers learning opportunities for a technologically sophisticated world that result in:

- Contributing and empowered citizens
- Active participants in a democratic society
- Educated, skilled, and adaptable workers
- Innovative lifelong learners
- Practical research and development
- Strong communities

Bemidji State University

Vision, Mission, and Guiding Documents

Vision

We educate people to lead inspired lives.

Mission

We create an innovative, interdisciplinary and highly accessible learning environment committed to student success and a sustainable future of our communities, state, and planet. Through the transformative power of the liberal arts, education in the professions, and robust engagement of our students, we instill and promote service to others, preservation of the earth, and respect and appreciation for the diverse peoples of our region and our world.

Shared Fundamental Values

- Civic engagement and leadership
- International and multicultural understanding
- Belief in the power of the liberal arts
- Environmental stewardship

Areas of Study

- College of Arts and Sciences
- College of Business Technology and Communication
- College of Health Sciences & Human Ecology
- Integrative Programs

- School of Graduate Studies
- School of Nursing

In addition, each of the three colleges has a published mission statement which connects the mission of the college to that of the university.

College of Arts and Letters: The College of Arts and Letters prepares students to encounter questions, search for answers, and develop a vision that transcends limited perspectives, to fashion a view of life that is spiritually creative and intellectually defensible in this closely linked and highly pluralistic world.

College of Social and Natural Sciences: The College of Social and Natural Sciences prepares students for scientific inquiry, career opportunities, responsible citizenship, and life-long learning.

College of Professional Studies: The College of Professional Studies develops leaders for an evolving world.

Master Academic Plan

The Master Academic Plan (MAP) completed in 2005 provides a flexible overall framework for the development of specific college and department plans and for academic initiatives that reflect those plans. In this way, the MAP guides academic development at the university and connects current planning efforts to those that have gone before, including the University Plan 2002-2007 and the evaluation of Opportunities and Challenges.

The Master Academic Plan coordinates efforts toward the following six outcomes (unranked):

1. High quality programs (provide high quality educational programs and services that support students' professional, personal, and citizenship development).
2. Excellent faculty (hire and support excellent faculty).
3. Secure future for Northern Minnesota (help build the future of Northern Minnesota).
4. Diverse student, staff and programming (enhanced diversity).
5. Excellent teaching and learning environment (support the teaching and learning environment).
6. Financial stability (secure financial stability through appropriate growth and program development).

Each outcome has sub-categories and each sub-category has decision parameters. The decision parameters are useful in several ways:

- They provide a basis for the authoring of initiatives by the colleges and departments.
- They provide a basis for college and academic affairs decision-making with regard to initiatives.
- They invite interpretation and discovery. For example, review of the parameters might suggest a different frame or approach to an activity already built into an initiative, and might also provoke consideration of new approaches and activities. (Larry Hirschhorn and Linda May, "The Campaign Approach to Change: Targeting the University's Scarcest Resources," *Change*, June 2000).

As with other university planning documents, the Master Academic Plan remains open to review and modification.

References in this document to the Colleges include all academic programs, including the programs in Integrative Studies.

Strategic Plan

- Strategy A: Connect to our communities
- Strategy B: Develop and reinforce the meaning/relevance/power of the liberal arts
- Strategy C: Redouble our emphasis on innovation, access, persistence and student success
- Strategy D: Strengthen our capacity to provide an education of enduring worth
- Strategy E: Ensure adequate resources to achieve University goals by increasing engagement and philanthropic support
- Strategy F: Charting the future and strengthen institutional performance

Increased Native American Programming and Outreach

BSU is located on the historic Red Lake trail and near several important Native American Reservations. The completed first phase of the American Indian Resource Center (AIRC) provides a home for public events, collections, student counseling, and Native American programming. BSU's on-campus and distance-learning capabilities offer a strong opportunity for growing outreach to Native Americans.

Technology Goals

Bemidji State University recognizes the critical importance of effective technology planning in supporting and achieving the academic goals and mission of the University. As stated in a 2005 Educause Review article, an effective Technology Master Plan must:

- Be driven from the goals of the institution in order for technology to be seen as a vital strategic asset and not as a deployment commodity.
- Address the current and future needs of the students, faculty, staff, and community while incorporating instructional, operational and research initiatives.
- Delineate how technology can promote growth

opportunities and innovative ideas rather than focusing solely on operational efficiency or expansion of current services.

- Be a collaborative, cross-institutional effort with top-level sponsorship and support.
- Involve more than aligning IT with institutional goals. It must support and achieve these goals using technology.
- Be a continuous cycle of planning, implementing, and reviewing.

The Technology Master Plan addresses three categories of technology initiatives: Enhancing Teaching and Learning Environment, Improving Administrative Functions, and Advancing the Technology Environment. For additional information about each of these areas, refer to the complete Technology Master Plan.

Strategic Plan for Sustainability

Developed in 2009, the Strategic Plan for Sustainability (SPS) outlines three Strategies and nine corresponding Goals:

Reduce our Carbon Footprint

- Goal 1: Increase energy conservation and efficiency
- Goal 2: Reduce waste and increase recycling
- Goal 3: Encourage alternative modes of transportation
- Goal 4: Promote renewable energy

Model Stewardship of Land and Water

- Goal 5: Improve water quality and increase water conservation
- Goal 6: Increase native vegetation

Motivate, Educate, and Outreach on Sustainability Issues

- Goal 7: Disseminate sustainability information
- Goal 8: Provide leadership on and off campus
- Goal 9: Provide incentives to change behaviors

Climate Action Plan

Building off the Strategic Plan for Sustainability, the 2011 Climate Action Plan (CAP) identifies campus carbon emissions and outlines reduction strategies based on SPS Goals.

Natural Gas, Steam, and Electricity consumption were the primary contributors to campus carbon emissions, all of which are significantly affected by heating, cooling, and lighting the campus. Two key opportunities for carbon emissions reduction were identified:

1. Energy conservation.

- Lighting improvements.
- Plumbing efficiency improvements.
- Building envelope improvements.
- Steam trap retrofits.
- Pipe and valve insulation.
- Retrofit of existing HVAC systems.
- Controls upgrades and retro-commissioning.
- PC power management.
- Metering of thermal energy and electricity at each building to support energy management through measurement.

2. The use of biomass to produce thermal energy, electricity and chilled water.

- Adopt a set of energy/environmental performance goals.
- Add an absorption chiller or replace an existing chiller with an absorption machine.
- Develop a biomass-fueled combined heat, power and cooling system. (Sometimes known as trigeneration.)

CAP Strategies relevant to the Master Facilities Plan include:

- 1.5 Contract outside specialists to perform building audits, identifying potential areas for improvement in heating, cooling, insulation, and lighting.
- 1.7 Encourage high-efficiency lighting upgrades throughout campus.
- 1.9 Promote green building design, construction, and destruction; encourage LEED certification or similar standard (Laurel House as MN Greenstar Certified).
- 4.1 Investigate options for solar energy on campus; implement where appropriate and feasible.
- 4.3 Investigate options for wind energy on campus and in the community; implement where appropriate and feasible.
- 4.5 Continue to investigate alternatives for electricity and heating; implement when feasible.
- 4.7 Investigate Life Cycle Analysis of renewable energy options.
- 5.2 Perform a water audit to determine where water-saving measures can be cost-effective.
- 6.6 Review the Master Facility Plan to ensure that sustainability of the land is incorporated.

Vision, Mission, and Guiding Documents

Master Academic Plan

Six Transformative Goals

Goal 1: Enhance assessment of current academic programming to assure that courses, programs, and learning opportunities align with changing student, community, and employer needs.

Goal 2: Create and implement a strategic enrollment management plan to help increase enrollment and improve retention.

Goal 3: Promote a culture of innovation that supports new program development and high quality teaching.

Goal 4: Develop new online programming and expand online student support services in collaboration with Distance Minnesota.

Goal 5: Increase community outreach engagement.

Goal 6: Become recognized as a premiere developmental education institution within MnSCU.

Reinvention

Goals and Intended Outcomes

- *To create a financially sustainable NTC*
- *To stabalize NTC enrollment through quality and distinctiveness*
- *To enhance student success through stable, high quality programs*
- *To create academic pathways, articulations and partnerships*
- *To improve our regional stewardship*

Technology Goals

The college is very committed to providing access to advanced information technology systems including 3D visualization - a process that can visually transform a space into any multidimensional visual environment. Other strategies the college has or intends to incorporate include the following:

- Adapt to advancements and new ideas that will come to classrooms 20 years from now.
- Classroom walls that can open to accommodate large-group instruction and team teaching, and spaces that are less specialized and can be used for many functions.
- VoIP (voice over internet protocol) based phone systems supporting voice mail backup, learner voicemail, and paging zones for emergency alerts.
- Layer 3 switched network accommodating the use of VLANs (virtual local area networks) enhancing security and network performance.
- Technology Convergence - unifying multiple services such as voice, data and video on one network infrastructure.
- A streaming video system (SVS) - digital multicast video-streaming distribution system for access, retrieval and control of audio/video information. Results in any program on any media available to any station, area or room in the facility.
- Dual band systems:
    - Low bandwidth control and management information passed on data local area network (LAN)
    - High bandwidth video and audio information is transmitted by digital streaming IP multicast servers.
- Uses EIA/TIA wiring standards to handle thousands of simultaneous users.
- Gigabit data network backbones facilitating speedy backups and network performance for users.
- 802.11g 54Mbps encrypted wireless links for all facilitators, learners and staff. Support wireless phones for mission critical departments (i.e. facilities and information technology services).
- Switching and control equipment - by local, studio or remote origination of cable television, direct satellite viewing and teleconferencing.
- Computer controlled digital environmental control system for monitoring functions such as air quality, temperature, electrical usage, etc.
- Signals converted to MPEG.
- On-demand access to sources available to all classrooms, lab, conference room and offices.
- Wireless network within advanced interactive environments, experience studios, seminar and presentation spaces.
- Wireless internet connection.
- Interactive whiteboards linked to learner's laptops to allow notes to be saved.
- Projector allows for display of web pages or computer applications onto the whiteboard and add their own notes to the displays.
- Computer system security through the more recent development of agent-less (also called client-less) solutions providing positive learner experience yet maintaining manageable endpoint security.

Security

- Crime Prevention Through Environmental Design (CPTED) Strategies
  - Natural Surveillance
  - Territorial Reinforcement
  - Natural Access Control
  - Natural Access Maintenance
- Voice over Internet Protocol (VoIP) provides telephone service to classrooms and labs.
- Electronic access control
  - Allow users to manage offline and online access-control solutions
  - Programmable locks - Hand geometry (biometric), HID proximity, magnetic-stripe card and iButton with PIN number only.
  - Controlled access via card access security system. Programmable cards for authentication, authorization, and accounting of employee access to sensitive/secure areas.

Sustainability Living Programs

While Northwest Technical College does not have a specific plan to encourage environmental sustainability of the campus itself, the College publicizes several green workforce development programs.

- *Carpentry:* build energy efficient homes
- *Construction Electricity:* combine sustainable and traditional electrical systems
- *Forest Technology:* maintain and preserve natural resources
- *Renewable Energy Entrepreneurship*: start a sustainable living business
- *Residential Plumbing / HVAC:* incorporate new solar technologies
- *Sustainable Environment Technologies:* integrate traditional and sustainable energy
- *Wind Energy:* build small wind energy systems

Academic Frameworks

Academic Framework - BSU

Areas of Study

Bemidji offers more than 65 undergraduate majors and pre-professional programs and ten graduate degree programs. The University's departments are organized into five colleges and schools:

College of Arts and Sciences

- Aquatic Biology
- Art History
- Biology
  - Aquatic Biology
- Center for Environmental, Earth & Space Studies, Economics, and Sociology
  - Economics
  - Environmental, Earth & Space Studies
  - Sociology
- Chemistry
- Communication Arts
- Economics
- English
  - Communication Arts
- Environmental, Earth & Space Studies
- Geography
- Geography and Political Science
  - Geography
  - Political Science
- History
- Humanities
  - Art History
  - History
  - Humanities Program
  - Philosophy
  - Theatre
- Humanities Program
- Languages and Ethnic Studies
- Mathematics and Computer Science
- Music
- Philosophy
- Physics
- Political Science

Academic Framework - NTC

Areas of study

- Accounting Technology
  - Accounting Clerk
  - Associate Accounting
- Administrative Technology
  - Administrative Assistant
  - Administrative Support
- Automotive / High Performance Technology
  - Automotive Service Technician
  - Automotive Service Technology
  - High Performance Engine Machinist
  - Undercar Technician
- Business Technology
  - General Business
  - Small Business Entrepreneurship
- Child Care, Young Child Education
  - Child Care and Education
  - Young Child Education
- Computer Technology
  - Computer Helpdesk Technician
  - E-Merging Computer Technology
- Construction Technology
  - Carpentry
  - Construction Technology
  - Electrical Construction and Maintenance
  - Residential Plumbing HVAC
- Dental Technology
  - Dental Assisting
- Emergency and Fire Services
  - Emergency Medical Technician - Basic
  - Fire Service Technology
- Environmental Technology
  - Forest Technology
  - Renewable Energy Entrepreneurship
  - Sustainable Environment Technologies
  - Wind Energy
- Individualized Studies
  - Individualized Studies
- Manufacturing Technology
  - Manufacturing Engineering Technology

- Sociology
- Theatre
- Visual Arts

College of Business, Technology & Communication, Accounting

- Business Administration
- Career & Technical Education
- Mass Communication
- Technological Studies
  - Career & Technical Education

College of Health Sciences & Human Ecology

- Child Development
- Criminal Justice
- DLiTE
- FasTrack Secondary Initiative
- Nursing
- Physical Education, Health & Sport
- Professional Education
  - Child Development
  - DLiTE
  - FasTrack Secondary Initiative
- Psychology
- Social Work

Integrative Programs

- Honors Program
- Humanities Program
- Indian Studies
- International Studies
- Liberal Education Program
- Liberal Studies
- Pre-Professional Studies
- Religious Studies
- Science Program
- Social Studies
- Women's Studies

School of Graduate Studies

  - Manufacturing Technician
  - Manufacturing Technology
- Medical Office Technology
  - Medical Administrative Secretary Technology
  - Medical Coding
  - Medical Insurance
  - Medical Office Technology
  - Medical Practices Office Manager
  - Medical Secretary Technology
  - Medical Transcription
- Model Making Technology
  - Industrial Model Making
- Nursing
  - Nursing
  - Nursing Assistant
  - Practical Nursing
- Occupational Safety and Health
  - Occupational Safety and Health
- Office Management Technology
  - Supervisory Leadership
  - Supervisory Management
- Sales and Marketing Technology
  - Management
  - Marketing
  - Sales
  - Sales and Marketing
  - Sales Marketing and Management

Bemidji State University

Faculty

Employee Data	FY 2014 Data	5-Year Change
Total Headcount	645	-9.2%
Instructional Faculty	370	-20.1%
Service and Support	169	-4.5%
Professionals	39	-5.1%
Managers and Supervisors	85	-7.7%
Administrators	23	-30.8%
Percent Employees of Color	8%	60%
Percent Faculty of Color	9%	200%

Accreditation

Bemidji State University completed a Continuing Accreditation Self-Study Report in 2010. Please refer to that document for more information about accreditation.

Bemidji State University is affiliated with the Higher Learning Commission, completing its last comprehensive visit in 1999-2000. All degree programs at Bemidji State are accredited by the Higher Learning Commission of the North Central Association. Programmatic accreditations include the Council on Social Work Education, the National Association of Schools of Music, the American Chemical Society, and the Commission of Collegiate Nursing Education.

Partnerships

Northwest Technical College

Faculty

Employee Data	FY 2014 Data	5-Year Change
Total Headcount	130	-5.1%
Instructional Faculty	88	-22.1%
Service and Support	23	-4.2%
Professionals	18	125%
Managers and Supervisors	4	100%
Administrators	4	33.3%
Percent Employees of Color	0%	
Percent Faculty of Color	0%	

Accreditation

NTC is accredited by the Higher Learning Commission.

Partnerships

One of the primary functions of the Northwest Technical College/Bemidji campus includes the initiation of public and private partnerships in the immediate community and northwest region of the state. Current partnerships developed by the college that promote economic development and community vitality include:

- High schools for continued and new articulation,
- Colleges and universities for shared programming and articulation,
- American Indian communities and colleges,
- Business and industry for incumbent and new workforce training,
- Non-profit entities for mutual benefit, and benefactors for educational legacies.

Campus Histories

Campus History - BSU

1919 – Bemidji State Normal School opened with 38 students with teacher training as its primary curriculum.

1921 – Renamed Bemidji State Teachers College, offering a four-year degree.

1957 – Renamed Bemidji State College, reflecting ongoing curriculum changes.

1975 – Renamed Bemidji State University in recognition of its growing role as multi-purpose educational institution.

Campus History - NTC

1965 – Bemidji received approval for an Area Vocational Technical Institute.

1966 – School opened with classrooms, shops for the Automotive and Carpentry programs, a practical nurse related classroom, industrial drafting room, office occupations section, multi-purpose room, and student activity center. Total cost of the building was about $625,000, with approximately $250,000, worth of equipment. Costs shared by local School District # 31, the State of Minnesota, and the Upper Great Lakes Regional Development Commission.

Bemidji State University

While the name and curriculum of the school have changed through the years, the primary focus has not: Bemidji State University serves the people of its region. From its inception, BSU's first responsibility has been to provide quality educational opportunities to the citizens of northern Minnesota. Still, over the decades Bemidji State University has attracted more and more students from throughout the state, the region, the country, and other nations. Welcoming the current challenge of global education, the University encourages international students to study and live at BSU, and is increasing student opportunities to study and live abroad. Expansion of its on-line course offerings has also enabled BSU to serve more students living outside the area.

The Historic Role of Northwoods Character

Arthur O. Lee's institutional history, The University in the Pines, provides a detailed views of the rivalries and intrigues underlying the competition among Clear Lake, Thief River Falls and Bemidji for the new school. From early in the century, Bemidji was blessed with a visionary group of citizens. Their advocacy led to the creation of Lake Front Drive linking downtown with Diamond Point Park and the city forest, now on the site of BSU dormitory precinct.

The well-designed Lake Front Drive parkway setting proved to be a highly scenic and accessible location for the new Normal School. The quality of the city's park system and its weaving of parks with the campus site and downtown most likely contributed to Bemidji's winning bid for the campus. The presence of majestic pines and lakes also helped to build the case.

One message here is that, even before its founding, Bemidji State University benefited from excellence in site design and the beauty of its setting.

Northwest Technical College

1973 – Addition completed to accommodate new programs being offered in Auto Body, Auto Machinist, Dental Assistant, and Hardware Marketing. Office Education, Industrial Drafting, and Auto Mechanics Departments received enlarged spaces. New Commons Area provided for additional food service and socializing.

1977 – Legal Secretarial Program added and Industrial Drafting Program discontinued. Space divided between Hardware Marketing and a new Bookstore.

1986 – New 8500 s.f. addition included new cafeteria, kitchen, bookstore, offices, and a small conference room. Vacated area remodeled into computer labs and a word processing lab.

1991 – Legislation passed merging vocational technical institutes, community colleges, and state universities.

1992 – Bemidji Technical College merged with four other technical colleges in the region to form Northwest Technical College.

1992 – NTC Customized Training Services created.

1995 – The Minnesota Sate Colleges and Universities system consolidated state universities, community colleges, and technical institutions.

1995 – NTC-Bemidji received NCA accreditation.

1995 – A satellite campus in Redby on the Red Lake Indian Reservation moved from the Detroit Lakes Campus to the Bemidji Campus.

1996 – NTC-Bemidji received the McGraw Hill College of Excellence Award for Distance Education Learning.

2002 – Reorganization plan approved for Northwest Technical College transferring the administration of the college to Bemidji State University.

Previous Master Plan

The following is a summary of the external forces that have affected the campuses over the previous five years; a summary of the implemented projects since the previous plans were complete; existing studies; and the differences between the 2006 aligned plan for Northwest Technical College and Bemidji State University and the proposed plans.

External Forces of Change 2006-2014

- Recession
- 2008- Capital Bonding Bill
- 2008- BSU signs ACUPCC Climate Commitment
- 2010- Capital Bonding Bill
- Evolving MnSCU view on renovation

Capital Projects Implemented from the Previous Master Plan

Northwest Technical College

- Workforce/Advanced Technology Lab

Bemidji State University

- Sattgast Science Center Renovation & Addition;
- Memorial Hall Renovation in process
- Sanford demolition; 2014
- Maple Hall demolition; 2012
- Benson Hall Reconstruction; 2013
- Decker Hall Reconstruction; in process

Existing Studies

Internally Prepared Studies

- BSU Technology Master Plan; January, 2006
- BSU Master Academic Plan; 2013-2016
- University Strategic Plan; 2013-2016
- The University Plan; 2003

Externally Prepared Studies

- Hobson Memorial Student Union Master Planning Study; completed in 2006 by JLG
- Student Housing Needs Assessment; BSU, March, 2005 by Maxfield Research, Inc; Minneapolis, MN
- Parking Supply / Demand and Alternative Analysis; 2011
- Community Technology Center Predesign; December, 2005 by Widseth Smith Nolting; Bemidji, MN
- Biomass Plant Study; 2013
- Landscape Master Plan; 2012
- Residential Student Life Master Plan; 2009
- Academic Learning Center and Campus Renovation Predesign; 2014

The primary facility and site assessments from the previous plan are considered reasonable and accurate, and are supported by this master plan.

Demographics

Surrounding Area

While Bemidji State University primarily serves the citizens of Northern Minnesota, over the decades they have attracted more and more students from throughout the state, region, country, and world to live and study on-campus as well as partake in on-line course offerings. The NTC-Bemidji campus plays a significant role in providing citizens within a 14 county region of rural northwest Minnesota and eastern North Dakota access to a quality-learning environment.

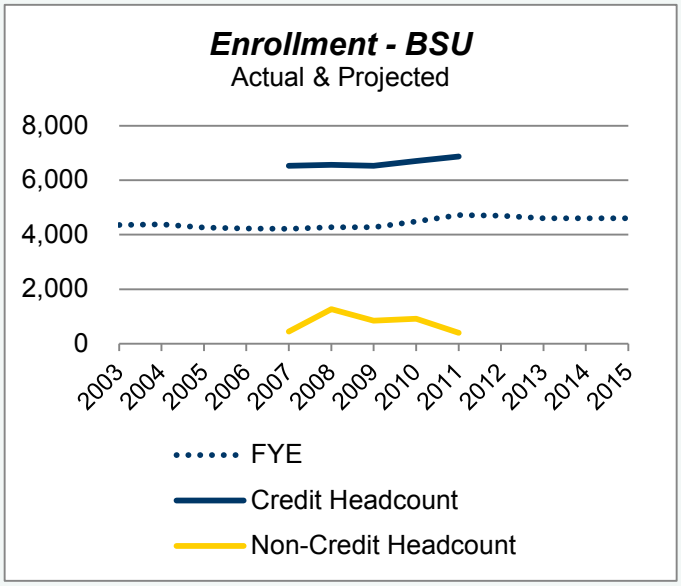
The demographic trends for the state of Minnesota show a 24% population increase between 2005 and 2035. While the five-county Headwaters region shows an increase of 22% during that time frame, Beltrami county itself if projected to grow by 34%. However, BSU and NTC will not be able to rely on an expanding school age population base as a resource for future students as the growth is due in large part to an aging Minnesota population. Statewide, the number of adults over 60 is expected to double by 2035, while the 20-24 age group will drop by 2025 before recovering to just above 2005 levels in 2035. While most races in the Headwaters will increase in population, the Native American population with remain relatively stable.

Each institution will need to work to attract students from outside the region, improve the attendance rate of the regional population, seek older students, and encourage the movement of students at the certificate and associate degree levels to “ladder” to higher levels of education.

Bemidji State University

Enrollment - BSU

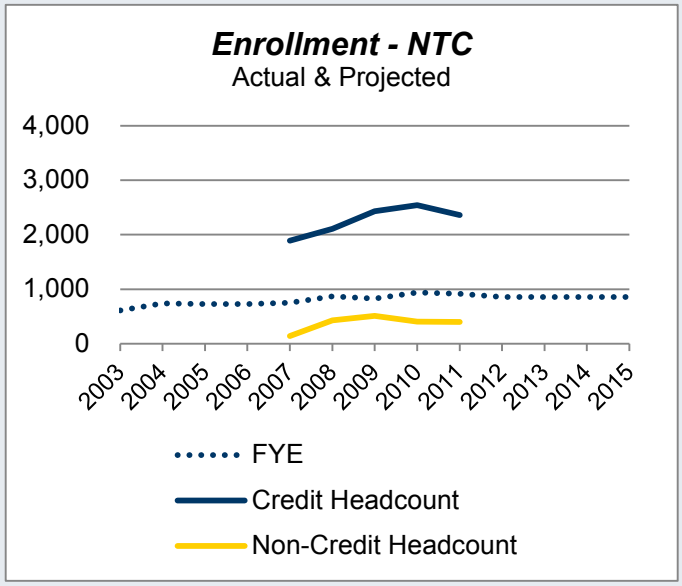
	FY 2014 Data	5-Year Change
Credit Student Headcount	6,170	-8% ±
Non-Credit Student Headcount	828	-2% ±
FYE	4,296	-4% ±
Percent Underrepresented	46% ±	10% ±
Percent Student of Color	9% ±	14% ±
Percent Pell Eligible	35% ±	26% ±
Percent First Generation	14% ±	-13% ±
Completion Rate (sixth spring)	46% ±	1% ±
Over 25 years old	26% ±	-6% ±
Out-of-State	11% ±	0% ±
Percent Female	56% ±	4% ±



Northwest Technical College

Enrollment - NTC

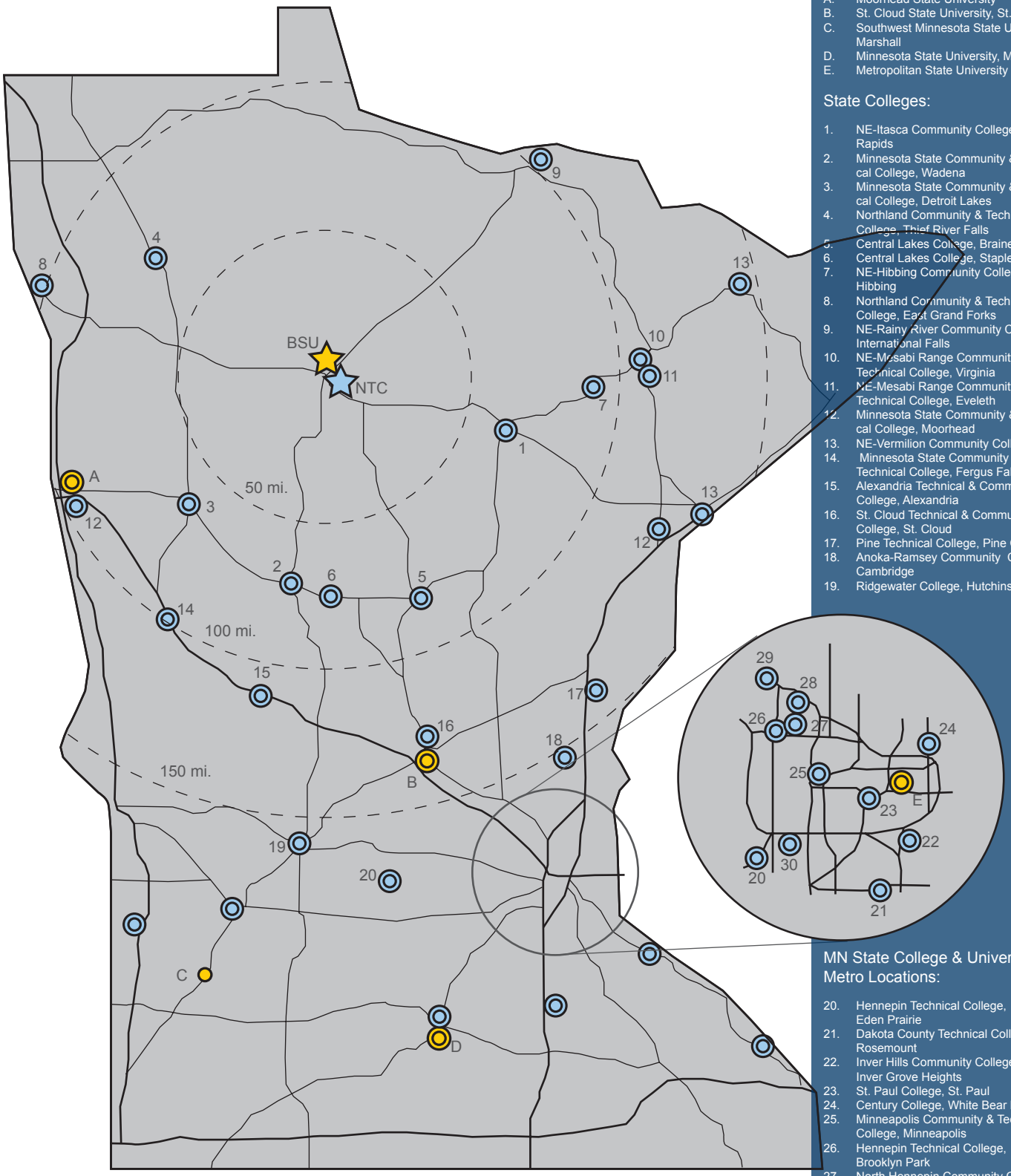
	FY 2014 Data	5-Year Change
Credit Student Headcount	2,246	25% ±
Non-Credit Student Headcount	484	180% ±
FYE	723	22% ±
Percent Underrepresented	62% ±	6% ±
Percent Student of Color	21% ±	1% ±
Percent Pell Eligible	44% ±	9% ±
Percent First Generation	23% ±	-4% ±
Completion Rate (third spring)	29% ±	not avail.
Over 25 years old	47% ±	-2% ±
Out-of-State	12% ±	0% ±
Percent Female	69% ±	4% ±



Area University & College Mileage Chart (approx.)

NE-Itasca Community College, Grand Rapids..... 70 miles
Minnesota State Community & Technical College, Wadena..... 86 miles
Minnesota State Community & Technical College, Detroit Lakes..... 91 miles
Northland Community & Technical College, Thief River Falls..... 91 miles
Central Lakes College, Brainerd..... 99 miles
Central Lakes College, Staples ..... 104 miles
NE-Hibbing Community College, Hibbing..... 106 miles
Northland Community & Technical College, East Grand Forks..... 113 miles
NE-Rainy River Community College, International Falls..... 114 miles
NE-Mesabi Range Community & Technical College, Virginia..... 130 miles
NE-Mesabi Range Community & Technical College, Eveleth ..... 133 miles
Minnesota State Community & Technical College, Moorhead..... 135 miles
Duluth..... 150 miles
NE-Vermilion Community College, Ely..... 175 miles
Minneapolis/St. Paul ..... 230 miles

MnSCU Campus Locations



State Universities:

A. Moorhead State University
B. St. Cloud State University, St. Cloud
C. Southwest Minnesota State University, Marshall
D. Minnesota State University, Mankato
E. Metropolitan State University

State Colleges:

1. NE-Itasca Community College, Grand Rapids
2. Minnesota State Community & Technical College, Wadena
3. Minnesota State Community & Technical College, Detroit Lakes
4. Northland Community & Technical College, Thief River Falls
5. Central Lakes College, Brainerd
6. Central Lakes College, Staples
7. NE-Hibbing Community College, Hibbing
8. Northland Community & Technical College, East Grand Forks
9. NE-Rainy River Community College, International Falls
10. NE-Mesabi Range Community & Technical College, Virginia
11. NE-Mesabi Range Community & Technical College, Eveleth
12. Minnesota State Community & Technical College, Moorhead
13. NE-Vermilion Community College, Ely
14. Minnesota State Community & Technical College, Fergus Falls
15. Alexandria Technical & Community College, Alexandria
16. St. Cloud Technical & Community College, St. Cloud
17. Pine Technical College, Pine City
18. Anoka-Ramsey Community College, Cambridge
19. Ridgewater College, Hutchinson

MN State College & Universities Metro Locations:

20. Hennepin Technical College, Eden Prairie
21. Dakota County Technical College, Rosemount
22. Inver Hills Community College, Inver Grove Heights
23. St. Paul College, St. Paul
24. Century College, White Bear Lake
25. Minneapolis Community & Technical College, Minneapolis
26. Hennepin Technical College, Brooklyn Park
27. North Hennepin Community College, Brooklyn Park
28. Anoka-Ramsey Community College, Coon Rapids
29. Anoka Technical College, Anoka
30. Normandale Community College, Bloomington

Legislative Mandates

Legislative Mandates that may affect future projects include:

- All predesign, design, and construction projects shall include consideration of the State of Minnesota's Correctional Industries Program, MINNCOR Industries, consistent with Minnesota Statutes Section 16B.181, subdivision 2, paragraph (c), in Predesign planning and product specifications.
- Plans for a new building or for a renovation of 50 percent or more of an existing building or its energy systems must include designs which use active and passive solar energy systems, earth sheltered construction, and other alternative energy sources where feasible. New buildings must consider meeting at least two percent of the energy needs of the building with renewable sources (wind or sun) located on the building site. (Minnesota Statute 16B.32 and 2008 amendment)
- Construction of a building, a substantial addition to an existing building, or a substantial change to the interior configuration of an existing building requires the preparation of a predesign. (Minnesota Statute 16B.335)
- When practical, geothermal and solar thermal heating and cooling systems must be considered when designing, planning, or letting bids for necessary replacement or initial installation of cooling or heating systems in new or existing buildings that are constructed or maintained with state funds per Minnesota Statute 16B.326.

Ongoing Implementation and Plan Evaluation

Importance of Updating

While a complete update of the Master Facilities Plan should occur every five years, changes in academic programs, teaching methodologies, technological innovations, emerging partnerships, and other unforeseen forces should be documented in this plan as they occur. This is intended to be a flexible document in order to remain useful to the University.

Master Facilities Plan Implementation

The process of updating a campus master plan can result in a feeling of optimism and motivation among the faculty, staff, students, and administration. In order to not lose momentum, it is important that Bemidji State University and Northwest Technical College implement as many recommendations of the plan as soon as possible. This immediately justifies the Master Plan and adds to its perceived value. Likewise, other projects should be completed and "crossed off the list" so when the formal updating occurs, the institution can see the history of completed projects resulting from the previous plan.

Periodic Plan Evaluation

The aligned institutions should engage in ongoing dialogues about the future of the university, both in its academic and student service functions as well as the use and design of its facilities. This forms the foundation for identifying, designing, and implementing changes to the College's facilities.

While the individual members of the Master Plan Advisory Committee will change, the group should always include individuals from Finance, Facilities, Administration, and Academic Planning, and should involve other faculty, staff, students, and key community members. The committee should meet twice a year to review changes on campus, whether an unexpected donation or an emerging new academic program, and analyze the impact on campus facilities and the correlation to the Master Facilities Plan.

Master Plan Advisory Team

- Dick Hanson, President
- Bill v , VP for Finance & Administration
- Rob Bollinger, Foundations
- Jim Clark, NTC Dean
- Harry Cottrell, Student Services NTC
- Dale Ladig, Residential & Student Life
- Carol NielsenCollege Bus., Tech. & Comm.
- Joan Poor, College of Arts & Sciences
- Mary Ward, VP Student Devel. & Enrollment

Consultants

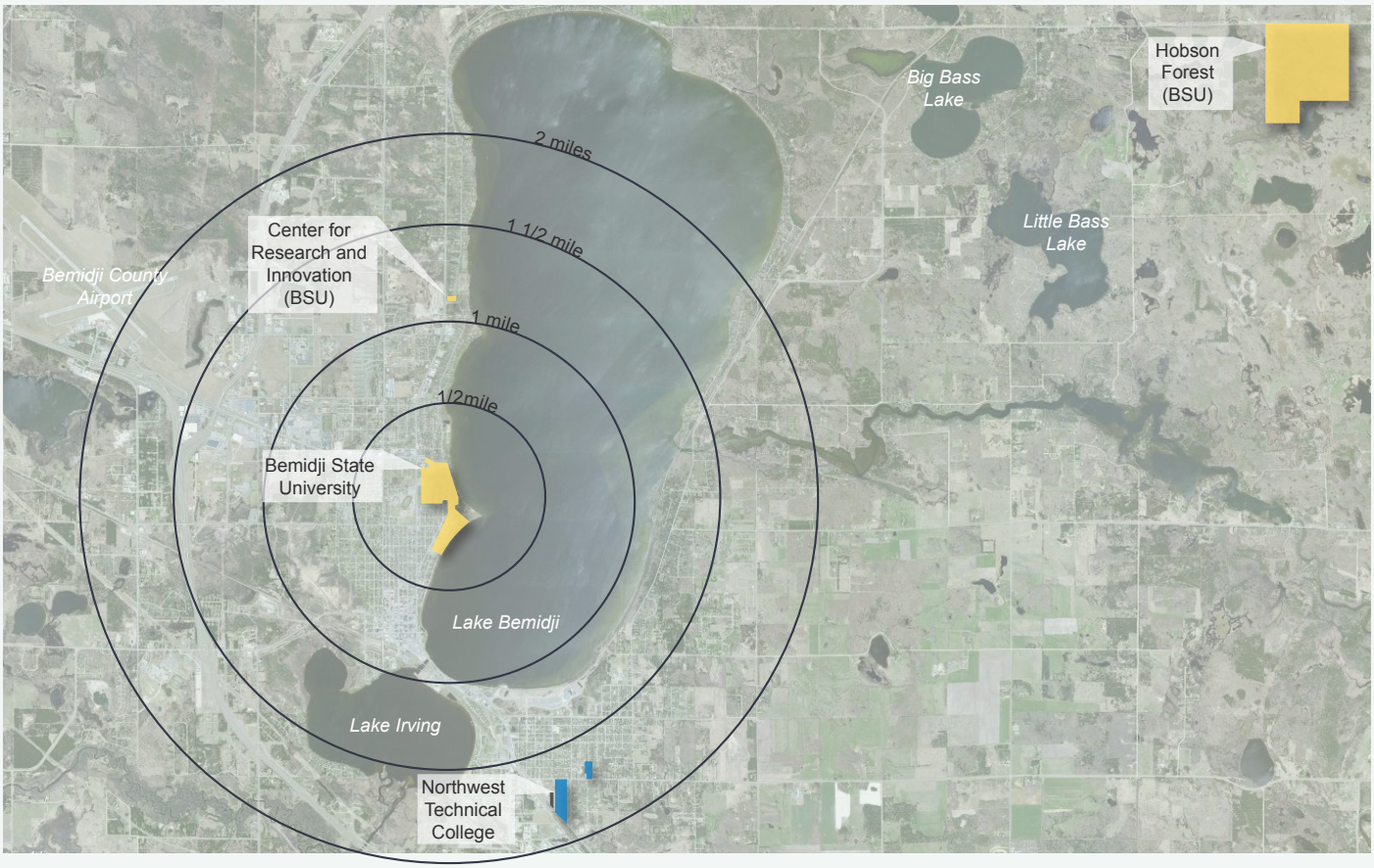
- Dick Hanson, President

Section 2A: Existing Site Conditions

Context

The Bemidji State University campus is bounded on the east by Lake Bemidji and on the north, west, and south by the City of Bemidji. Stands of pine, oak, and birch reflect the nearby presence of the north woods. Major campus facilities are connected by all-season sky walks and underground passages.

1500 Birchmont Drive NE
Bemidji, MN 56601-2699



Existing Site Analysis

Campus Site Metrics

Tracking the breakdown of surfaces types on campus is essential for reducing both stormwater runoff and heat island effect. Though not included in the scope of this Master Plan, tracking the following metrics is recommended.

Total Property Area: 105 acres (estimate)
Roof Area
Non-building hard surfaces - impervious
Non-building hard surfaces - permeable
Planted/cultivated vegetation (lawns, landscaped areas, crops, etc.)
Forest/naturalized areas
Wetland: 0 acres
Open water: 0 acres

Surface type campus diagram

Summary of Current Campus Site Conditions and Challenges

- The layout of the campus is comprised of academic facilities located along the lake and student housing and recreation facilities to the northwest of Bemidji Avenue. This layout divides the campus and makes it difficult to understand just where the campus begins and ends.
- The campus lacks a clear connection to Lake Bemidji. Buildings are not generally oriented towards it and service drives and loading docks are often located between major buildings and the shore. No major outdoor gathering spaces take advantage of the lake.
- Walkways are numerous and follow desire lines, but do not help to create a pattern or flow that organizes space and structure; instead they dissect the campus.
- Mature Northwoods vegetation, views of Lake Bemidji, and cultural assets exist on campus, offering a connection to Bemidji's context. However, the landscape lacks continuity and consistency.
- There are many entries to the campus. 19th street off Bemidji Avenue North is the most prominent. Birchmont Drive Northeast and 14th Street Northeast provide access to the academic side of the campus. Lake Front Drive is a scenic route to the campus, but it terminates at the campus property boundary in a one-way road in the opposite direction.
- The entries and sequence of arrival to the campus presently are weak, with none of the entry roads being ceremonial and no clear sense of entry.
- Signage and campus identification is weak, contributing to the uncertain arrival experience.
- On-campus circulation is disjointed, with Birchmont being the primary through-road which runs along an internal edge of the campus. The rest of the internal circulation either runs through parking lots or is terminated by parking. Service roads exist along the lakefront, degrading the most desirable locations on campus for pedestrians and outdoor gathering.
- There are safety problems where major pedestrian and vehicular circulation routes conflict.
- Parking on campus is a constraint that will have to be accommodated to support future development. The limited parking available creates proximity conflicts between sites and use, i.e. the parking lot and existing football facility.

Campus Layout

Bemidji State University's campus is generally organized with academic buildings along the lake at the south end of campus and student housing and recreational facilities located to the northwest, across Birchmont Avenue. The result of this layout is a lack of connectivity between the two areas. Rather than becoming a focal point, the place where these two parts of campus meet, just south of Birch Hall, is currently a dangerous intersection between major vehicular and pedestrian routes.

Another fundamental challenge of the campus layout is its lack of connection to Lake Bemidji. Most buildings' loading docks and service drives are located on their lake-facing side. No major outdoor areas fully utilize a connection to the lake and, in fact, few gathering spaces even exist on the lakefront portions of campus. There is a public trail along the lake, but it doesn't connect to the major circulation paths of the campus. Diamond Point Park provides recreational access to the lake, but it is not on University property and is clearly disconnected from the campus in many ways.

Landscape Design

Campus aesthetic

Several spaces throughout the BSU campus act as interesting models for using the natural and cultural context of the campus as inspiration for its landscape design. Students, staff, and visitors associate the campus with views of Lake Bemidji and the tall pine forests of the Northwoods. The lakeside trail, the triangle of woods south of Birch Hall, and the views across Diamond Point Park towards the lake, are all memorable examples of the campus's connection to its natural setting. In addition, several more formal spaces have been designed that provide a more traditional academic aesthetic or feature public art. The arch and walkway in front of Deputy Hall provides a formal entryway to the academic side of the campus. The entrance areas around Bridgeman Hall create interesting spaces for gathering and use public art to make interesting pedestrian routes.

Despite these unique features of the campus, the overall landscape design is disjointed and inconsistent. Some areas are vibrant and inviting, while others feel barren or even unsafe. The landscape doesn't help unify the campus experience as much as it could.

Site Furnishings

BSU consistently uses a bench with a tan, wood-like seat and back and a round armrest. Some areas have seatwalls or other bench alternatives and some areas that have not been renovated in many years may have an older style of bench. Picnic tables are another common site furnishing around campus, but their style is much less consistent and they often seem oddly located. Some areas lack any seating options.

Outdoor Learning Areas

There are few designated outdoor learning areas, but some programs use the lake or other natural areas for observation

or experimentation. The circular plaza outside Bridgeman Hall is one of the few potential outdoor classrooms, though other lawn areas may be used in that way.

Pedestrian Circulation & Wayfinding

BSU has two pedestrian circulation systems, one through tunnels and indoor routes to protect students from the local weather, and one outdoors using paths, trails, sidewalks, and plazas. The outdoor circulation system provides numerous routes between buildings and gathering areas, but it lacks a hierarchical logic that would focus pedestrian traffic and help with wayfinding. In many locations, walkways seem to have been added wherever desire lines were identified. This helps reduce wear on sod or planted areas, but it requires much more plowing and maintenance, creates a confusing network of paths, and increases the frequency of conflicts with vehicular routes.

Vehicular Circulation

Campus Entry and Perimeter Conditions

It is possible to enter campus from a variety of local streets. 19th street off Bemidji Avenue North, Birchmont Drive Northeast, and 14th Street Northeast all provide access to the academic side of the campus. Lake Front Drive could act as a scenic approach to campus, but it ends at the campus property line with a one-way road going the other direction. No approach stands out as a primary access and all of the routes lack a clear and inviting entry experience. Parking lots and sports fields occupy the outer edges of campus, making it difficult to determine exactly where campus begins and contributing to a sense of sprawl. Signage is inconsistent and does not provide a clear sense of arrival.

On-campus circulation

Birchmont Avenue forms the primary north-south spine for vehicular circulation across the length of campus. 19th Street runs east-west through the student housing and recreation facility portions of the north end of campus. All other campus roads end in parking, loading docks, or other secondary facilities. This results in a disjointed and confusing road system. In addition, service roads, loading areas, and small parking lots occupy valuable lakefront land, cutting off potentially important public spaces and buildings from the lake.

Parking

Most parking is provided in large surface lots at the north and south ends of campus. Their location results in a perceived lack of parking because “good” spots disappear quickly. Parking is allowed along Birchmont, except in winter when seasonal parking restrictions apply. Several smaller surface lots are scattered throughout the campus, but they are either restricted by user or fill very quickly. Many students park on the residential streets west of campus, but the city is planning to change the rules for parking in these areas, which will put more pressure on campus lots.

Beyond the functional aspects of parking quantity and proximity, the appearance and ecological impacts of the parking areas are also important. These are often the first and last parts of campus students and visitors see whenever they come to campus and they take up large areas of the site. The existing lots lack trees and other landscaping and don’t communicate anything positive about the campus. This lack of landscaping also eliminates opportunities to mitigate the

The wooded triangle south of Birch Hall is one of several areas that contributes to BSU’s Northwoods character.

negative impacts of stormwater runoff and the heat island effect.

Number of Parking Spaces:

	Handicap	Res. Life	Reserved	Meters	Reg. Stalls
Bangsberg	2		22	16	391
Lake Blvd.	0		0	0	42
14th St.	6		0	4	0
16th St.	1		0	10	0
A.I.R.C.	2		3	4	29
Limited Reserved	0		0	0	37
Ed-Arts/Bridgeman	0		0	5	0
North Hagg-Sauer	4		1	0	0
Lower Union	5		3	0	0
Heating Plant	0		2	0	0
Birth	5		2	10	70
Linden	4	5	2	6	74
Cedar	2		7	0	26
Oak	4	9	2	10	478
Rec. Lot	3		0	12	98
Upper PE Lot	5		2	0	176
Lower PE Lot	1		3	6	45
Walnut	2		8	5	0
Totals:	46	14	57	88	1466

Loading Docks

Many buildings have independent loading docks or loading areas. In some cases, these areas face prominent public areas or the lake where screening would be desirable. Some routes to loading docks may be difficult for large trucks to negotiate and put pedestrians in conflict with large vehicles.

Mass Transit and Biking

Several bus stops are located along Birchmont Avenue and elsewhere, connecting the campus to the city's bus system. Bus shelters provide adequate shelter and safety, but they don't provide any special features that would highlight them as campus destinations. Bike routes are not clearly signed or marked, although many pedestrian paths are used for biking. Bike racks are scattered across campus, but are not consistently attractive or well-located. One piece of public art acts as a unique bike rack and indicates the potential for transforming utilitarian needs into site features.

Campus Safety

The University's Department of Public Safety fosters a safe and secure environment where diverse, social, cultural, and academic values are allowed to develop and prosper. Refer to their Annual Report for current safety information.

Storm Water Control

See Stormwater Infrastructure Map.

Utility Infrastructure

See Utility and Pedestrian Tunnel Infrastructure Map.

The plaza south of Bridgeman Hall incorporates public art into an outdoor learning area.

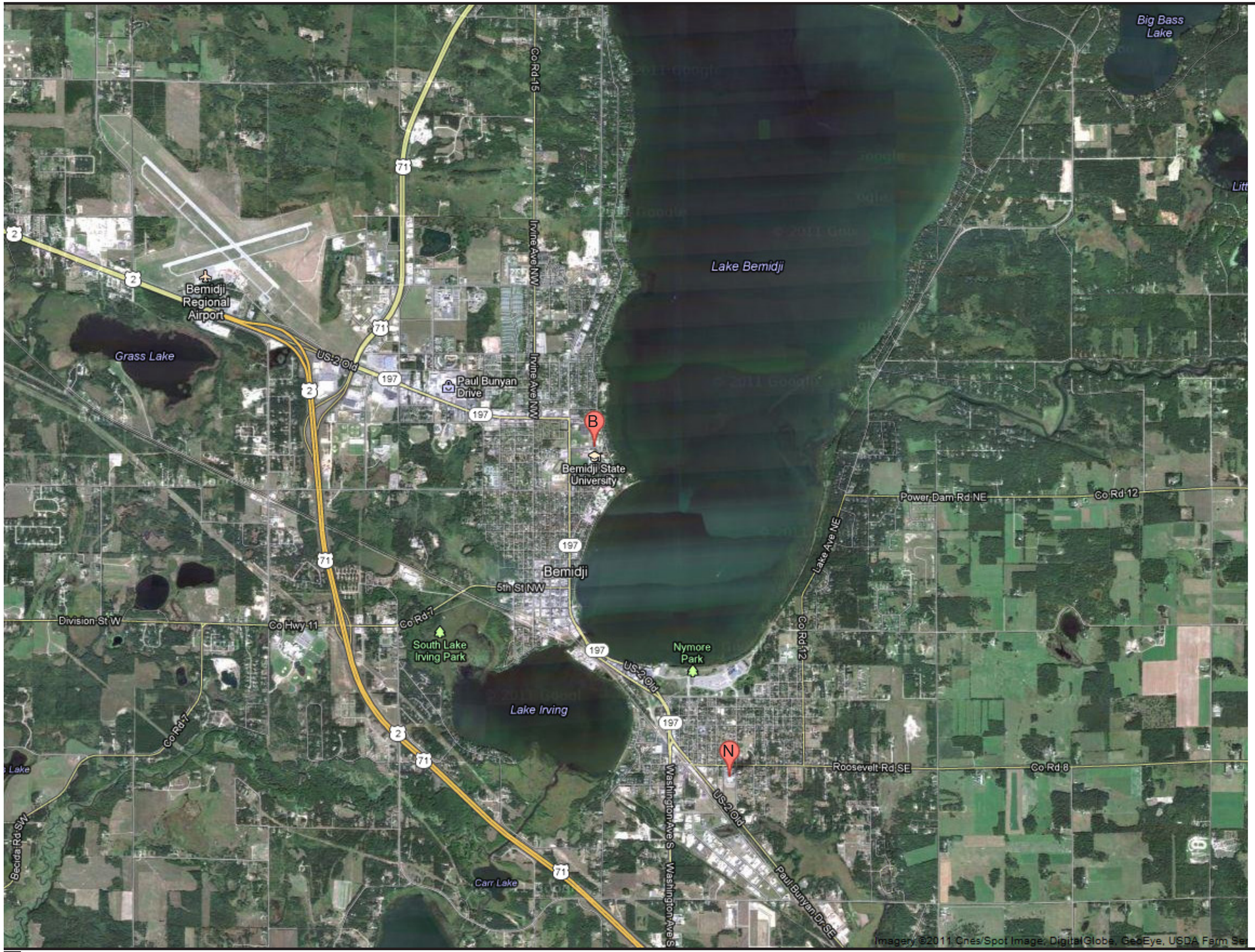
Birchmont Avenue acts as a north-south spine through campus, but frequent pedestrian crossings result in safety problems.

Service roads and other secondary uses occupy valuable lakefront land.

The parking lot at the south end of campus lacks landscaping or other features to make it an inviting introduction to campus.

A bus shelter on Birchmont Avenue uses solar power for lighting and an emergency phone.

Aerial Context Map



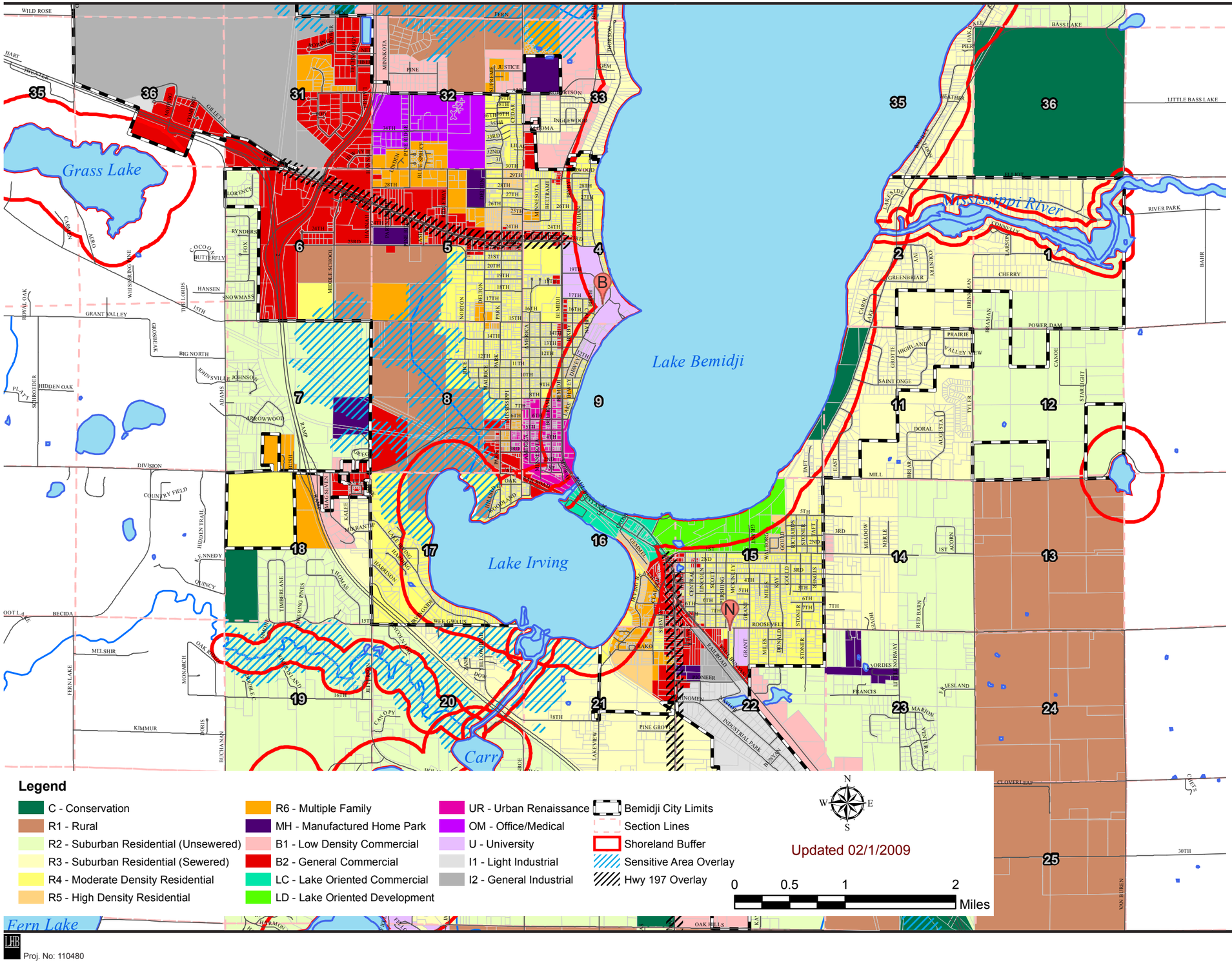
Key:

B — Bemidji State University

N — Northwest Technical College

NORTH

Partial Bemidji Zoning Map



Campus Aerial Photo & Existing Site Boundary

Bemidji State University

Key:

Existing Property Boundary

NORTH

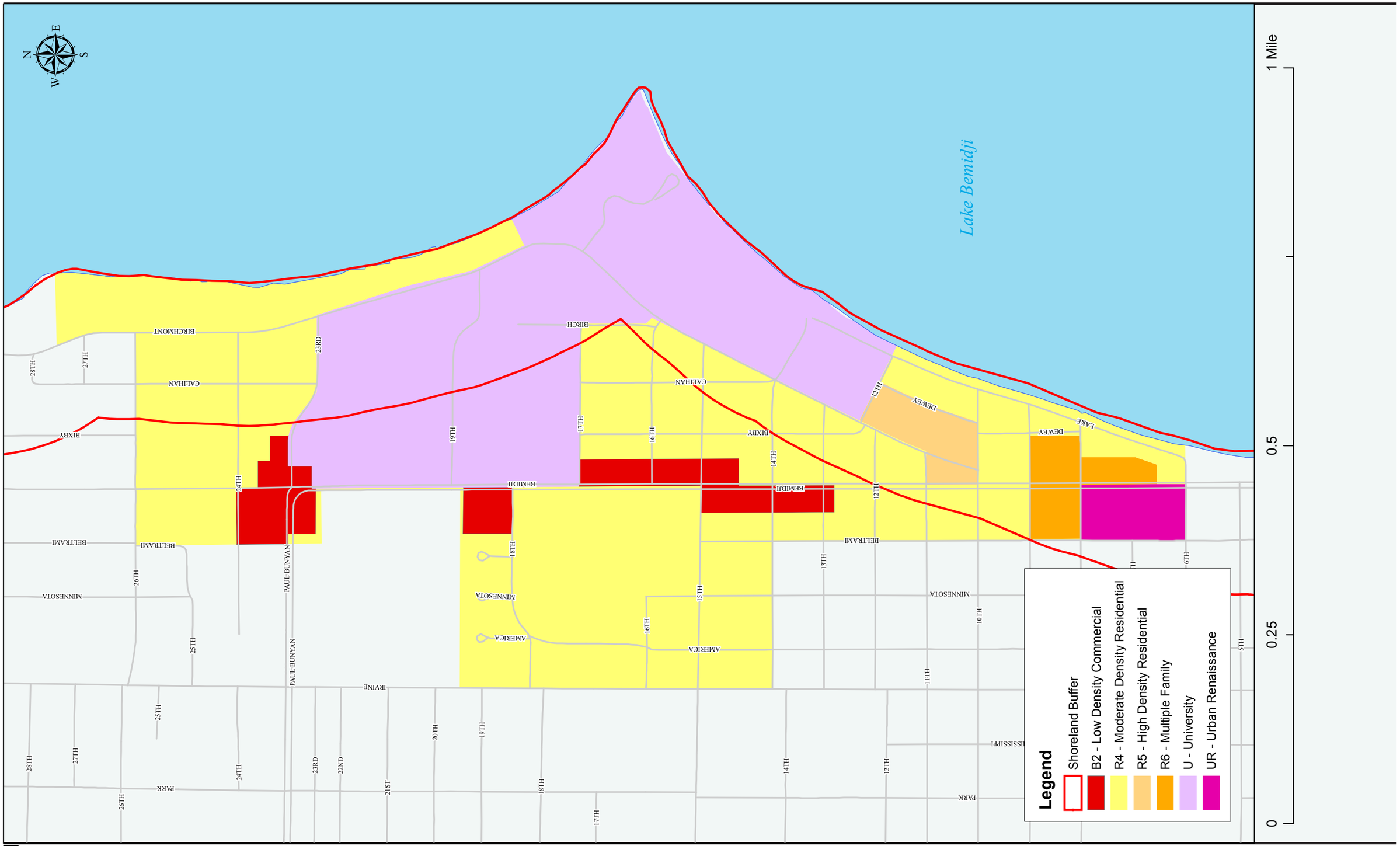
University Overlay District - Study Area

Bemidji State University

Proj. No: 110480

University Overlay District - Current Zoning

Bemidji State University



LHB

Proj. No: 110480

University Overlay District - Land Use

Bemidji State University

Lake Bemidji

BIRCHMONT
BIRCH
23RD
28TH
27TH
CALIHAN
BIXBY
19TH
17TH
16TH
12TH
DEWEY
LAKE
24TH
14TH
BEMIDJI
BELTRAMI
18TH
MINNESOTA
15TH
13TH
12TH
7TH
6TH
26TH
AMERICA
16TH
25TH
PAUL BUNYAN
11TH
IRVINE
PARK
22ND
21ST
20TH

Land Use

Property Tax Classification

- Cemetery
- Church
- University
- Commercial
- County
- Hospital
- school
- Municipal
- Residential
- State Property

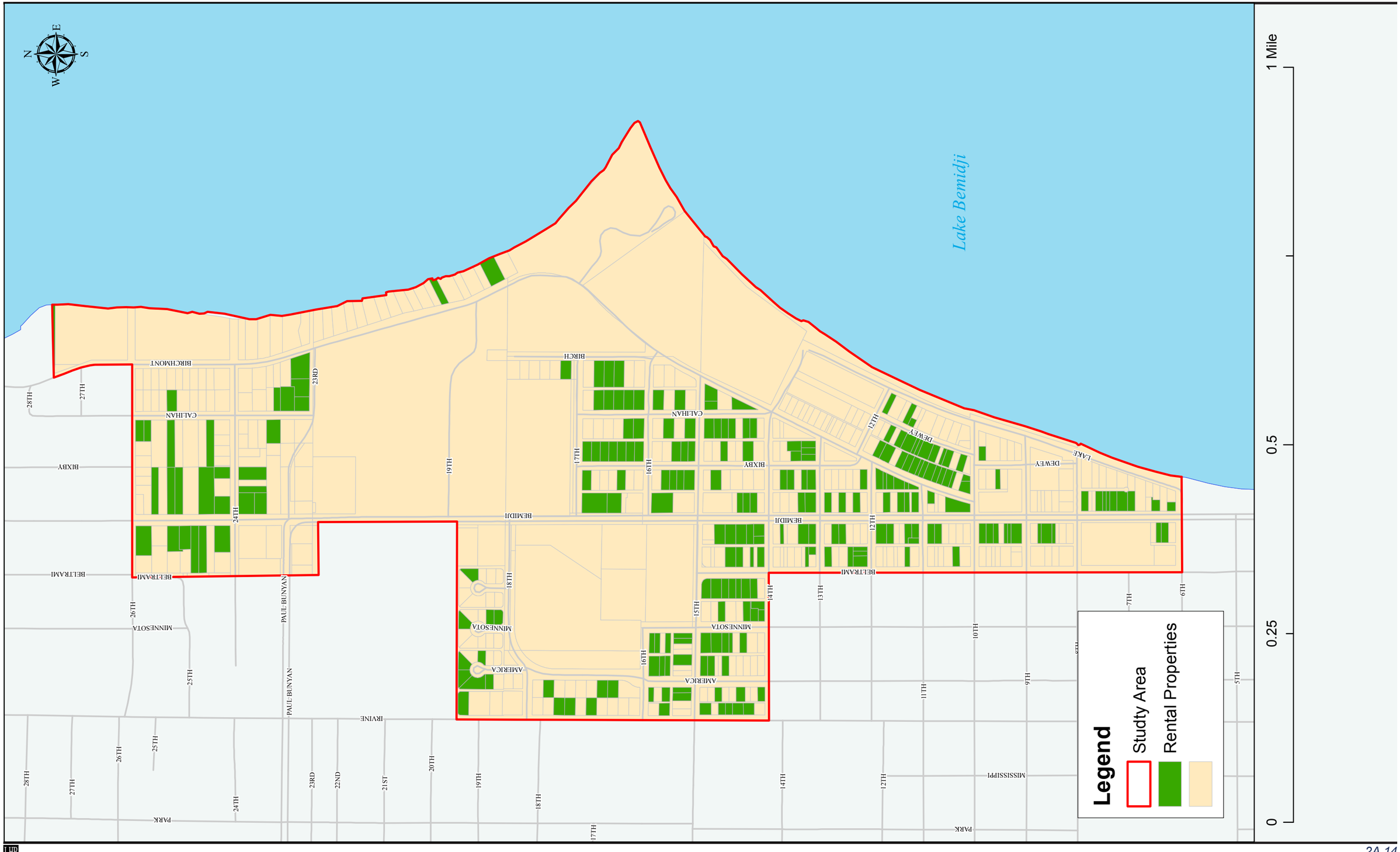
1 Mile

0 0.25 0.5

LHB Proj. No: 110480

University Overlay District - Licensed Rental Properties

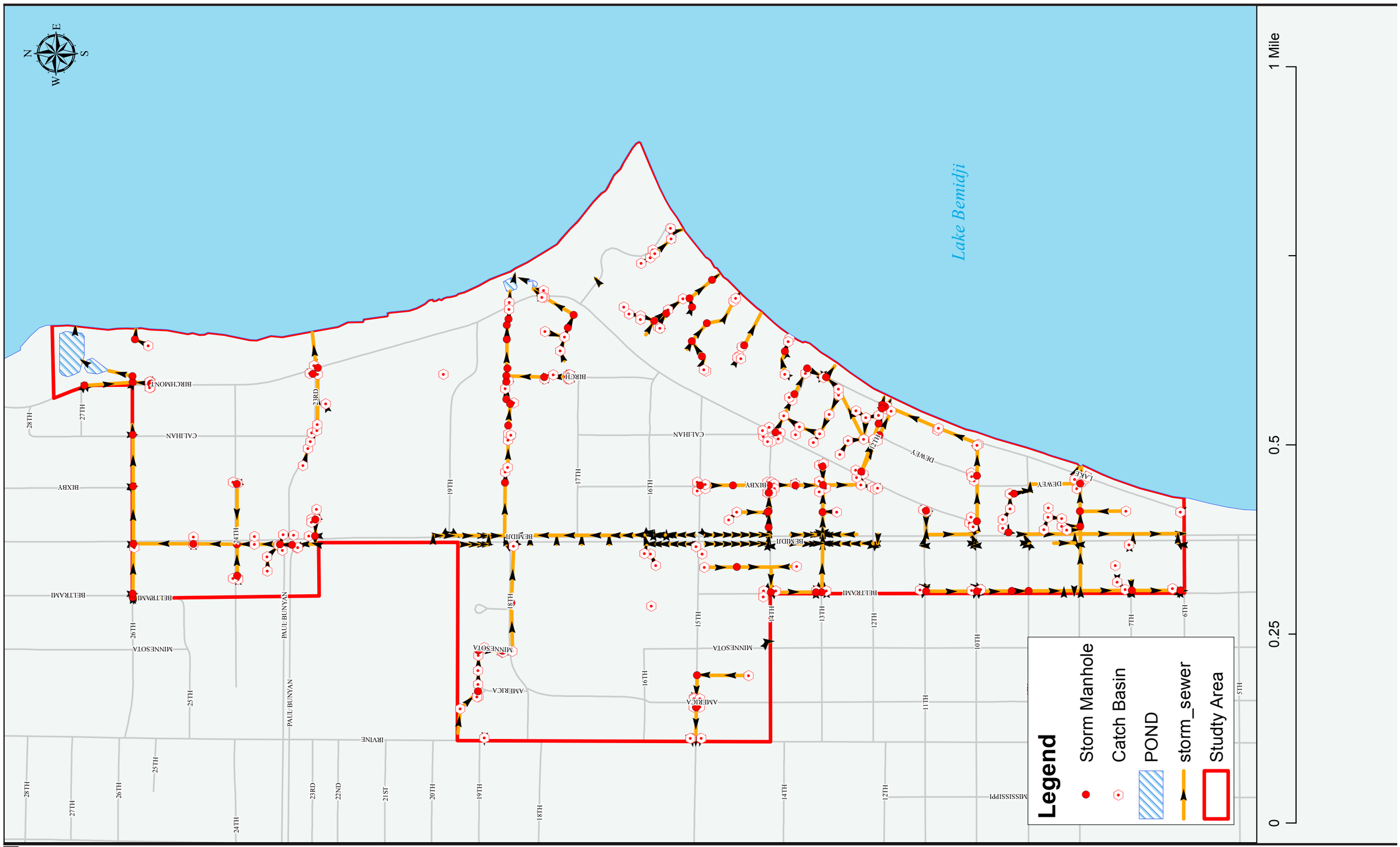
Bemidji State University



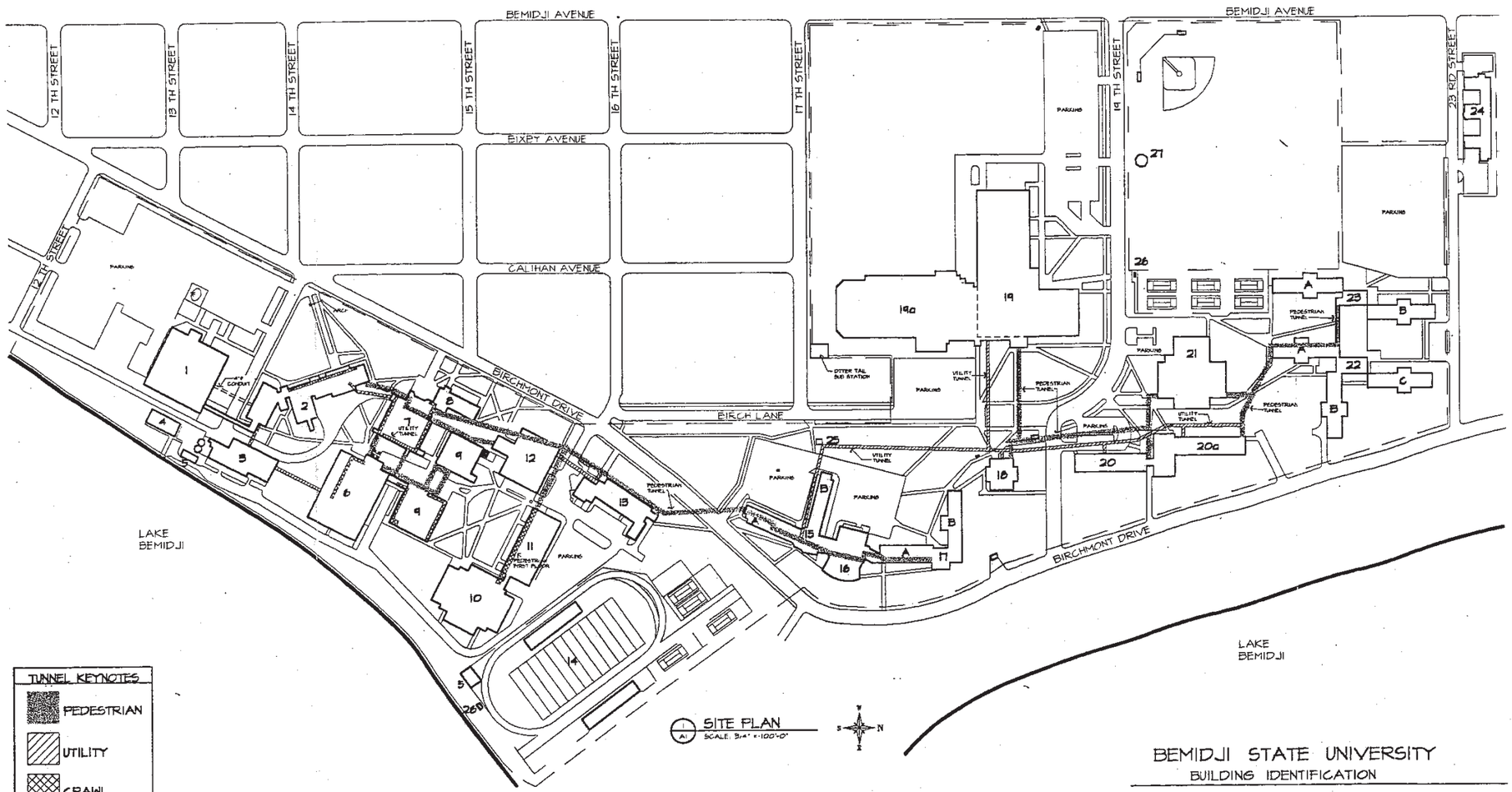
LHB Proj. No: 110480

University Overlay District - Stormwater Infrastructure

Bemidji State University



Proj. No: 110480



TUNNEL KEYNOTES

- PEDESTRIAN
- UTILITY
- CRAWL

SITE PLAN
SCALE: 3/64" = 100'-0"

BEMIDJI STATE UNIVERSITY
BUILDING IDENTIFICATION

1. BANGSBERG FINE ARTS COMPLEX
2. DEPUTY HALL
3. HEATING PLANT & GARAGE
4. HAROLD T. PETERS HALL
5. BOAT HOUSE
6. SATTGAST HALL
7. MEMORIAL HALL
8. SANFORD HALL
9. HOBSON MEMORIAL UNION
10. HAGG-SAUER HALL
11. BRIDGEMAN HALL
12. A.C. CLARK LIBRARY
13. EDUCATION - ART BUILDING
14. STADIUM
15. BIRCH HALL
16. HICKORY HALL
17. LINDEN HALL
18. TAMARACK HALL
19. JOHN S GLAS FIELDHOUSE
19a. FITNESS / RECREATION CENTER
20. CEDAR HALL
20a. PINE HALL
21. WALNUT FOOD SERVICE
22. OAK HALL
23. MAPLE HALL
24. MAINTENANCE - RECEIVING
25. ELECTRICAL SUB STATION
26. PUMP HOUSE
27. BALL FIELD TOILETS

LOCATION PLAN

Design DB Drawn DB Checked RR

Richard Rude Architectural
1951 ANNE ST. N.W. SUITE 201
BEMIDJI, MN 56601
218-751-5316 FAX. 218-751-0251

TUNNEL MAP
BEMIDJI STATE UNIVERSITY
BEMIDJI, MINNESOTA

Job No. 9912
Date 5-10-99
Sheet No.
Sheet 1 of 1
Revisions

Existing Campus Map

KEY

EXISTING SITE FEATURES

1. Gateway
2. Small group gathering areas
3. Landscaped terrace and outdoor art
4. Sunken seating area and garden
5. Pedestrian bridge
6. Outdoor Gathering area
7. Sculptural wall and bike rack
8. Wooded triangle
9. Diamond Point Park
10. Outdoor Program Center
11. City Bike Path
12. Boathouse
13. Sculptural benches
14. Council ring and fire pit
14. Soccer Field
15. Practice Field
16. Former High School Property
17. Softball Field
18. Tennis Courts
19. Daycare
20. Volleyball and open space
21. Major parking lot

EXISTING BUILDINGS

A. Bangsberg Fine Arts Center
B. Deputy Hall
C. Heating Plant
D. Sattgast Hall
E. Memorial Hall

G. Hobson Memorial Union
H. A.C. Clark Library
I. Bridgeman Hall
J. Hagg-Sauer Hall
K. Education-Art Building
L. American Indian Resource Center
M. Chet Anderson Stadium
N. Birch Hall
O. Decker Hall
P. Linden Hall
Q. Electrical Substation
R. Tamarack Hall
S. John Glass Field House
T. Gillet Fitness and Recreation Center
U. Cedar Hall
V. Pine Hall
W. Walnut Food Service
X. Oak Hall

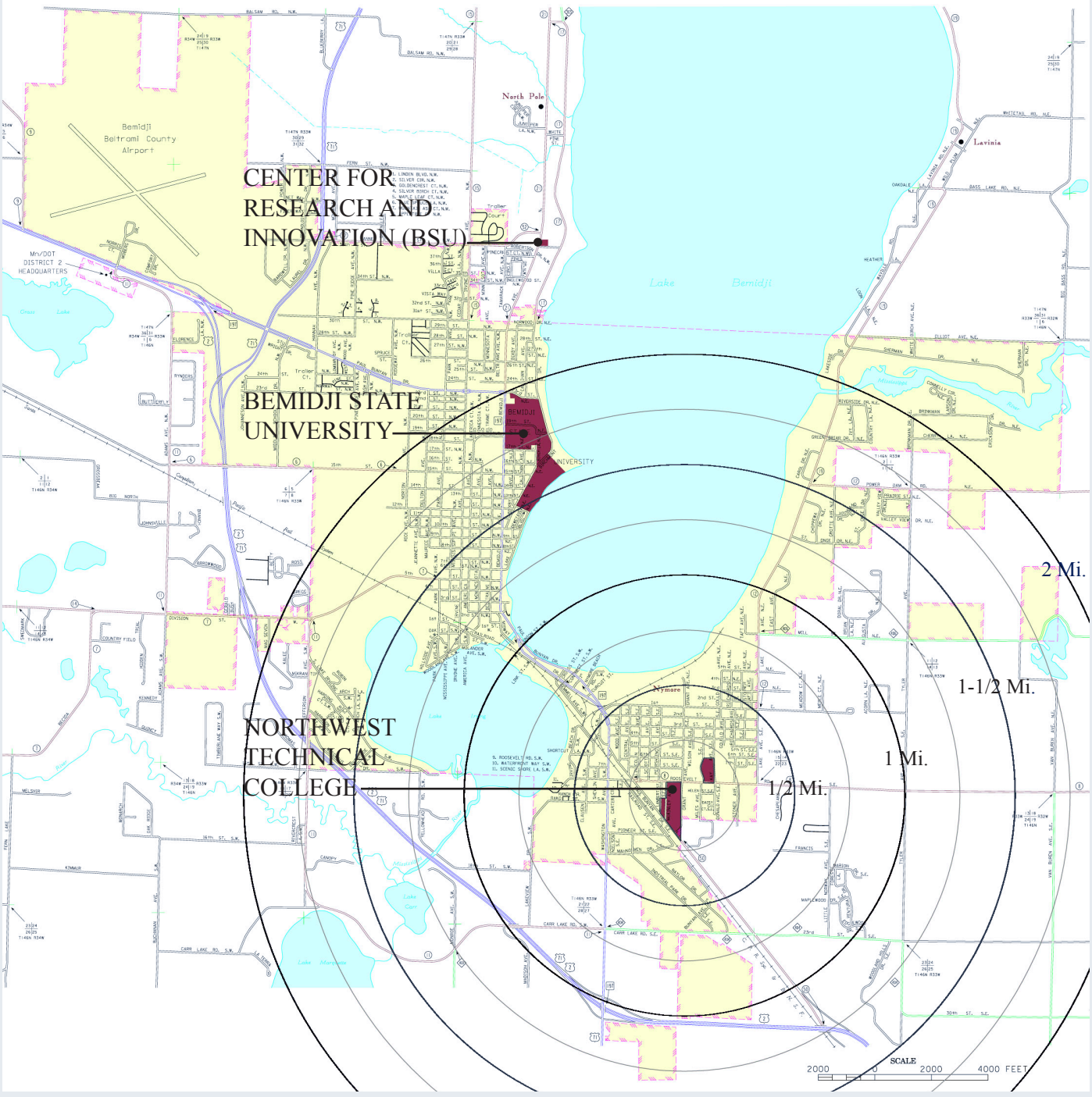
Z. Maintenance/ Receiving.
AA. Baseball Stadium
AB. Athletic Field Sanitation Building
AC. Otter Tail Sub Station
AD. Alumni Park House
AE. 1509 House
AF. Center for Research and Innovation

Section 2B: Existing Site Conditions

Context

Northwest Technical College – Bemidji is located on 22.1 acres of land southeast of Lake Bemidji in Bemidji, Minnesota. The campus borders County Road 50 as it travels through the city of Bemidji and adjoins Minnesota Highway 2. The campus is three miles from downtown Bemidji and five miles from Lake Bemidji State Park.

905 Grant Avenue SE
Bemidji, MN 56601-4907

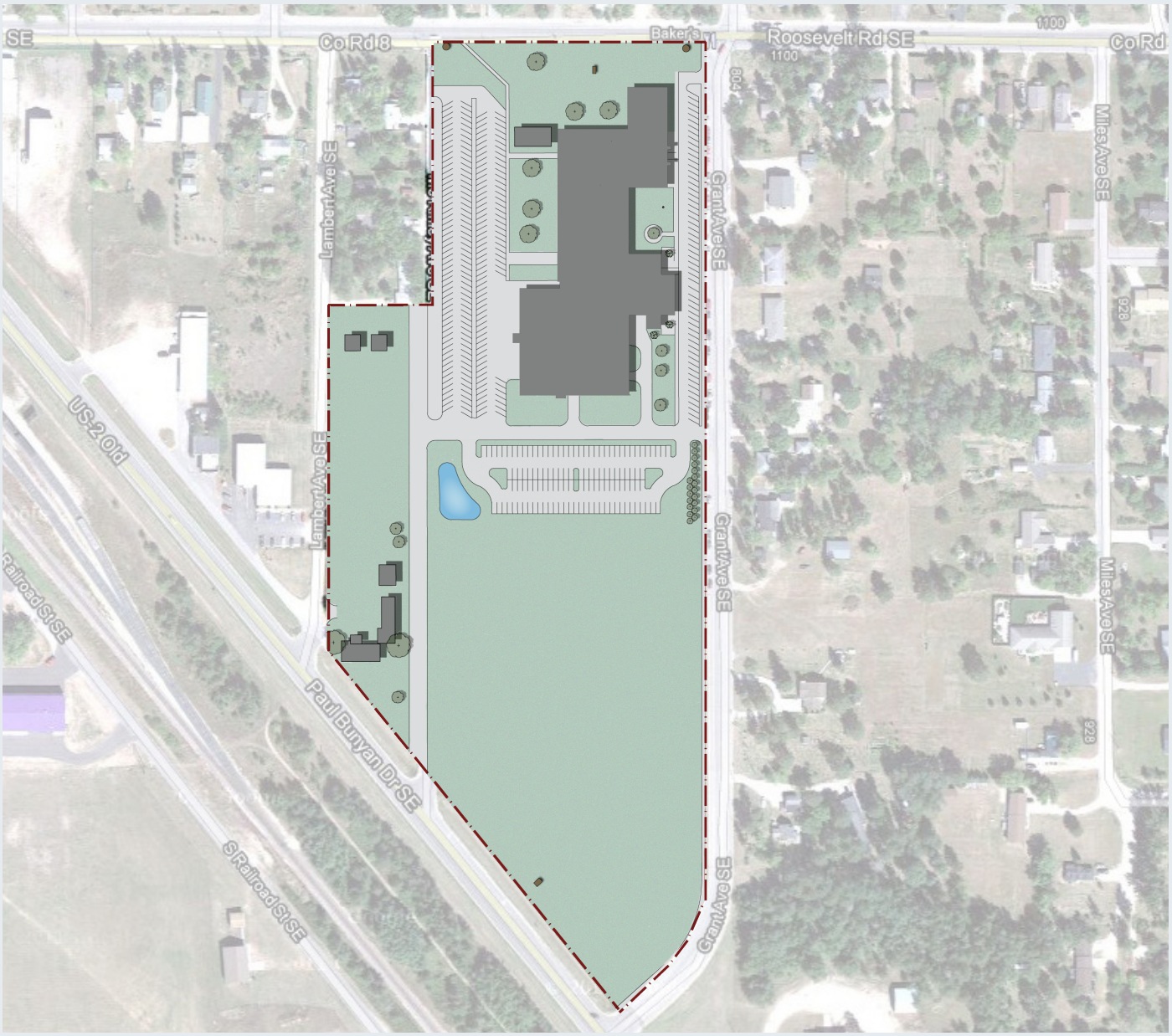


Existing Site Analysis

Campus Site Metrics

Tracking the breakdown of surfaces types on campus is essential for reducing both stormwater runoff and heat island effect. Though not included in the scope of this Master Plan, tracking the following metrics is recommended.

Total Property Area: 19.8 acres (estimate)
Roof Area: 2.3 acres (estimate)
Non-building hard surfaces - impervious
Non-building hard surfaces - permeable: 0 acres
Planted/cultivated vegetation (lawns, landscaped areas, crops, etc.)
Forest/naturalized areas:
Wetland: 0 acres
Open water: 0 acres



Surface type campus diagram

Summary of Current Campus Site Conditions and Challenges

- New signage, sculpture, gardens, and outdoor gathering spaces have improved the campus aesthetic. However, the campus lacks a consistent character and clear boundaries.
- Some areas, especially on the west and south sides of campus are devoid of landscape features.
- Site furnishings lack consistency.
- Outdoor classroom space is very limited.
- Outdoor trade areas aren't well screened.
- Important trade programs aren't highlighted in an attractive way.
- The main entry should be emphasized to improve wayfinding.
- Parking is sufficient in number, but lacks landscaping and other features to make it a positive part of the campus aesthetic.
- More facilities and support might encourage increased bike and mass transit use. In particular, bike racks are needed.
- The site lacks evidence of sustainable landscape solutions.

Campus Layout

The main building is located on the north side of the 22.1 acre site along Roosevelt Road. The campus is spread over two parcels of land, which are separated by single family houses and a major road. Title research is needed to identify what, exactly, is owned by the campus. A survey should be conducted to identify location of the campus boundaries.

Landscape Design

Campus aesthetic

The campus landscape primarily consists of open lawn areas. Several gardens and sculptures on the north and east sides of the main building create focal points and encourage gathering outside. However, the south and west sides of campus seem almost barren with a lack of landscaping, trees, gathering areas, or other features. Landscaping on the annex sites is almost non-existent and these areas seem purely utilitarian and unrelated to the main campus.

Site Furnishings

Most site furnishings are located on the east side of the main building, near entries or garden spaces. Each outdoor area uses a different style of bench or picnic table, so that the campus lacks unity.

Outdoor Learning Areas

There are several small gathering areas on the east side of the main building, including a circle of three benches in the courtyard and two outdoor dining areas near the main entry and Baker's. A few picnic tables are present on the west side of the building, but they don't seem to define a true gathering space. Several programs use portions of the large field to the south and areas near the garages for classes and training. However, outdoor trade areas are not well screened. Trade programs are important parts of the college's academic mission, but are not highlighted in an attractive way.

Pedestrian Circulation & Wayfinding

Pedestrian circulation is primarily between the parking lots and the building. Way finding signage is geared towards vehicular access. There is no pedestrian way finding signage on the west side and little on the east side of the building. Finding the main entry can be challenging because the main building entry is located away from the campus entrances and is hard to identify, partly because the Allied Health building looks dominant.

Vehicular Circulation

Campus Entry and Perimeter Conditions

The campus is bordered by Roosevelt Road to the north, Grant Avenue to the east, County Road 50 (Paul Bunyan Drive) to the southwest and McKinley Avenue to the west. The primary entrance to the campus is from the west along Roosevelt Road. Secondary campus entrances are from the northwest and southeast along County Road 50. The campus is somewhat difficult to find, even though it is adjacent to a major thoroughfare.

The first impression of campus can be underwhelming because of the style of the buildings and the open site dominated by parking, as well as the unattractive annex buildings. This situation has been improved by signs and sculptures on the north edge of campus and a digital sign on the south edge.

On-campus circulation

Once on campus, most circulation is within parking lots. An east-west cut-through bisects the campus just south of the main building and links the major parking areas. Circulation to the annex sites relies on previous knowledge of the campus because these areas aren't sign nor are they clearly identifiable as campus buildings.

Parking

A vast majority of students arrive on campus by way of car. Student parking is located on the south and west sides of the building and faculty and visitor parking are located on the

east side of the building. Additional parking is available on the South Annex site, but it is unpaved and unmarked. Street parking is also available.

Number of Parking Spaces:

East lot:	46 spaces (37 standard, 3 accessible, 1 visitor, 5 metered)
West lot:	179 spaces (175 standard, 4 accessible)
South lot:	110 spaces (107 standard, 3 motorcycle)
Street:	46 (24 on Grant, 22 on McKinley)
Total:	321 spaces

Parking lots are one of the first and last things students, faculty, and visitors experience on campus each day, but the NTC lots lack landscaping and other features to make them more attractive. They also could be sites for incorporating attractive and sustainable stormwater management features.

Loading Docks

Loading docks are located on the south and west sides of the building. Traffic for the docks is fairly well separated from pedestrian areas, but is mixed with other vehicular traffic. Turns and access points appear to be sufficient.

Mass Transit and Biking

Currently there is no identifiable bicycle circulation on the campus and no bike racks were noted. Several bikes were locked to signs, columns, or other site features. Demand doesn't appear to be extremely high, but it might rise with sufficient facilities.

There is no marked bus stop on campus, but a shuttle was parked at the front entry when this site visit was conducted.

Campus Safety and Accessibility

Exterior lighting was not evaluated at night, but the highest traffic areas seemed to have adequate numbers of pedestrian lights, parking lot lights, and wall packs. The main building is handicap accessible from some, but not all entrances. Handicap parking is available in each parking lot and each of the three Annexes is handicap accessible.

Sustainability

Despite many opportunities in terms of both space and function, there are very few sustainable site features on campus except new gardens feature that native plantings.

Gardens and other focal points help create points of interest on the NTC campus.

This outdoor gathering area near Baker's provides seating and dining space.

Sculptures and signs help mark the north edge of campus.

The west parking lot lacks landscaping for appearance, shade, and stormwater management.

Without bike racks, bikes are locked to signs, columns, and other undesirable locations.

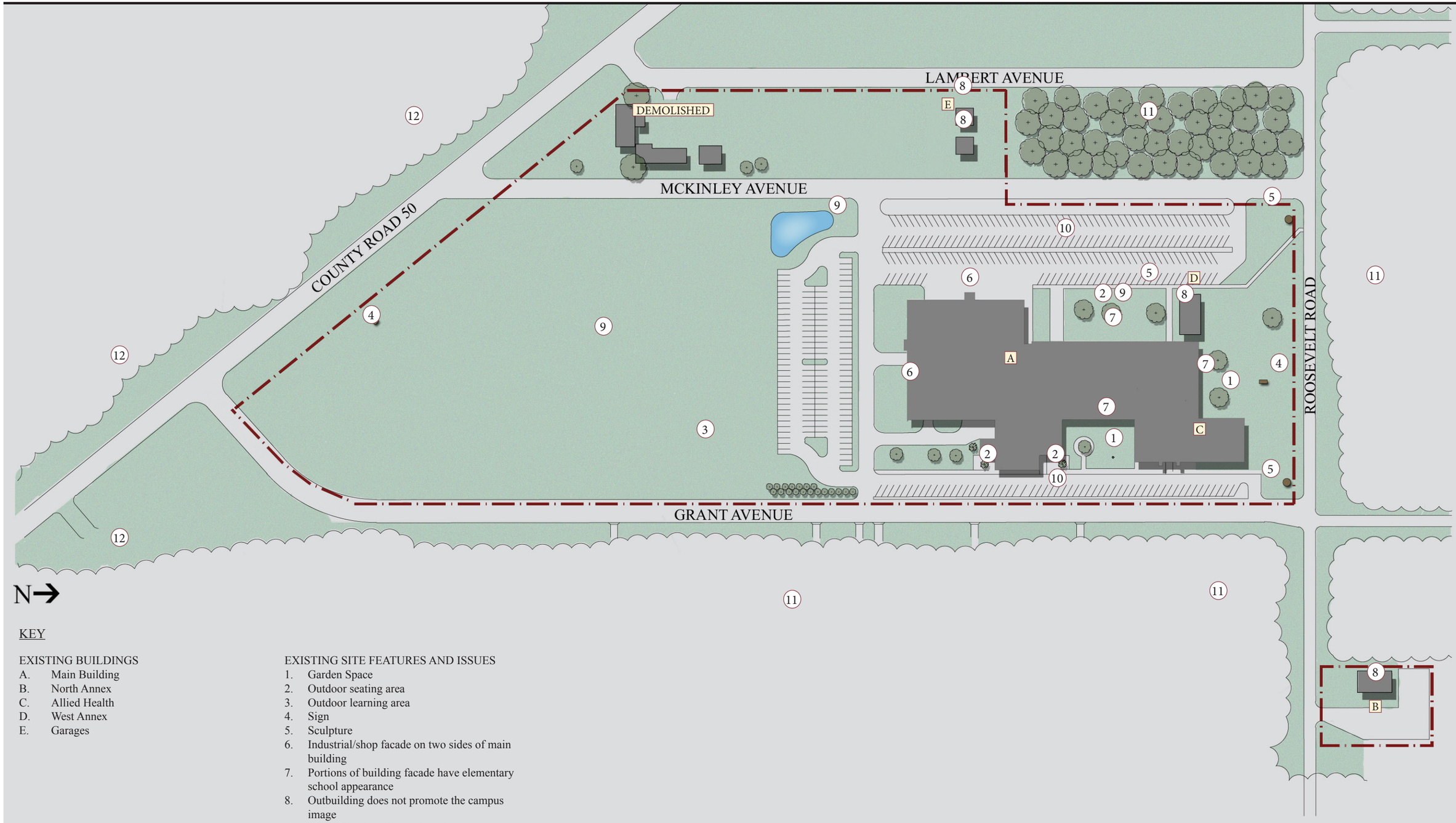
Campus Aerial Photo & Existing Site Boundary

Northwest Technical College

Key:

Existing Property Boundary

NORTH



KEY

EXISTING BUILDINGS

A. Main Building
B. North Annex
C. Allied Health
D. West Annex
E. Garages

EXISTING SITE FEATURES AND ISSUES

1. Garden Space
2. Outdoor seating area
3. Outdoor learning area
4. Sign
5. Sculpture
6. Industrial/shop facade on two sides of main building
7. Portions of building facade have elementary school appearance
8. Outbuilding does not promote the campus image
9. Lack of landscaping and seating spaces
10. Unattractive Parking lots with little landscaping
11. Developed single-family residential lots
12. Undeveloped Private Property

Section 3A: Existing Building Conditions

Summary of Issues

Building Entries

Bemidji State University generally has well defined building entries that are easily accessible via pedestrian paths on campus. However, the campus entry "vocabulary" is very understated, and it is difficult to identify the main entrance to a building. The materials, forms and landscaping should be enhanced to establish clear hierarchy of entrances. This will help to reinforce wayfinding, as well as, strengthen the University's identity.

Internal Signage, Circulation, and Wayfinding

The university dos not appear to have standardized signage throughout the campus that is color coded and keyed to a unified numbering system based upon building and floor. Good examples of existing signage are evident in certain locations that are attractive and appear to be complementary to the overall campus aesthetic. However, most existing campus signage is graphically challenged. This inconsistency is problematic and does little to assist campus navigation for visitors and new students.

In addition, the size and the complexity of the campus is a challenge to even experienced visitors due to the multiple buildings, streets, levels, tunnels and unlimited variety of rooms and corridors. As a result of the complexity of the campus layout, multiple levels and connections that counter intuition, the tunnel system, and the campus topography that varies significantly it is recommended that in addition to providing consistent and complementary signage system throughout the campus, that a campus mapping diagram and location system be established and regularly posted throughout the campus at key intersections and pedestrian by-ways. This type of system employed successfully at airports and shopping malls will significantly help the university create a well guided experience to all visitors, students and staff.

Informal Gathering Areas

Other than Hobson hall the campus shows an overall lack of informal gathering areas. Even where there has been an attempt made for informal gathering, the intent falls short of creating welcoming and cozy gathering spaces for campus users. Unique spaces are needed that would enable campus users informal meeting spaces to use as a social outlet or for informal meetings, group study areas, or even "heads down" quiet areas. There are also opportunities to improve building corridors through the strategic placement of informal gathering areas to allow for "impromptu" meetings and social gatherings.

Finishes and Furniture

The general appearance of finishes and furniture at Bemidji State University can be best described as dated and worn. In a few locations such as Bridgeman Hall, the American Indian Resource Center, the recently renovated dorms and the renovated areas of Sattgast the finishes are more fresh and up to date. The scheduled work for the renovation of Memorial Hall, and the re-construction of a new Hagg-Sauer facility will provide a much needed uplift in this category. Ideally, these new projects will establish a palette and brand for furnishings and finishes that can then be applied to future projects. It is strongly recommended that a phased update for finishes and furnishings be established with a floor by floor and building by building approach to update the campus.

Toilet Facilities

Restrooms throughout campus are in generally in fair to good condition. However, several facilities are deficient in fully meeting ADA standards in regards to proper mounting heights of toilet paper dispensers, the presence of protective covers on sink drains, and proper mounting height of accessible grab bars.

Loading Docks

There is really no centralized facility for deliveries to the campus. There are small receiving areas on a building by building basis, but almost all of these are inadequate facility for large trucks. Deliveries are further hindered by the difficult access off the residential streets, varying terrain and twisted access roads around to the backside of the buildings. A new loading dock and receiving area should be planned for in a central location as part of a consolidation of Building Services. In lieu of a centralized facility, all future projects must begin to seriously consider the implications of large truck deliveries in the design. The projected demolition of Hobson Hall and associated dining hall will alleviate the necessity of deliveries along the lakefront and the convoluted delivery route.

Space Utilization

Bemidji State University's space utilization is currently measured at 60% for classrooms (110) and labs (210) based upon the report dated February 7, 2012. The 72 classrooms (70%) and labs (33%) listed in the report are spread across the campus in ten facilities- American Indian Resource Center

(91%), Bangsberg Hall (38%), Bridgeman Hall (35%), Deputy Hall (56%), Decker Hall (61%), Education Arts Building (51%), Hagg-Sauer Hall (82%) , Physical Education Building (124%), Sattgast Hall (43%), and Sanford Hall (30%).

Observations:

- 16 of the 72 classrooms/ labs are measured at greater than 90% usage
- 18 of the 72 classrooms/ labs are measured between 65% and 89% usage
- 38 of the 72 classrooms/ labs are measured at usage below 65%
- Only one lab (210) space out of 20 is measured above 64% at 81%, and all others are below 65%
- Seat usage varies wildly, but averages only 44% for classrooms (110) and 16% for labs (210)
- The usage is spread out over a significant period of time from the morning thru the evening hours
- Many classrooms have significant available time blocks within the morning hours; however a number of the classrooms are scheduled consistently throughout the entire day.
- Not all of the classrooms are well appointed, well lit and configured appropriately for classrooms. Presentation technology and access to electronic media and systems seem appropriate in most classrooms
- The scheduled Renovation of Decker Hall and Memorial Hall will remove result in a net decrease of 4 classrooms that currently have a usage percentage of between 13% and 41%. This involves the demolition of Sanford Hall with a total of two classrooms.
- The four primary contributors to the low utilization rates are Bangsberg Hall (38%), Bridgeman Hall ((35%) and Education Arts (51%) and Sattgast Hall (43%)
- The scheduled Hagg-Sauer reconstruction will greatly improve the flexibility and configuration of the classrooms, but most likely will not result in a net decrease due to the relatively high utilization rates (all are over 72% except two classrooms). However, it may be considered to reduce the classroom number in Hagg-Sauer by two, and re-configure the classrooms in the Education Arts Building to accommodate 21st century instruction.

Information Technology

(Forthcoming)

Student Housing

Significant student housing opportunities currently exist on campus, and the reader is directed to the Residential Life Facility Mater Plan completed in May of 2009 by ESG Architects. The recent renovation of Birch Hall is an on-going example of efforts to modernize and right-size the residential options.

Facilities Overview

Gross Square Footage	1,506,284
Revenue Fund	571,829 SF (37.7%)
Academic Support	946,532 SF (62.3%)
Replacement Value	$435,685,000
Current Backlog	$46,654,000
Current FCI	.11
10-year Backlog	$110,984,000
10-year FCI	.25

Space Type	SF	%
1. Classroom	208,061	13.8%
2. Labs	126,329	8.4%
3. Office	177,152	11.8%
4. Study	53,596	3.6%
5. Special Use	196,936	13.1%
6. General Use	114,030	7.6%
7. Support	226,995	15.1%
8. Residential	403,185	26.8%

Existing Building Conditions

	BUILDING NAME	APPROX. GSF	CONSTRUCTED	REMODELED
A.	Bangsberg Fine Arts Center	86,878	1971	
B.	Deputy Hall	78,656	1916	
C.	Heating Plant	20,317	1919, 1929, 1949, 1979, 1981	
D.	Sattgast Hall	84,248	1962	1989
E.	Memorial Hall	53,893	1940	
F.	Not Used			
G.	Hobson Memorial Union	76,756	1967, 1971	
H.	A.C. Clark Library	71,462	1966, 1999	
I.	Bridgeman Hall	33,772	1964	
J.	Hagg-Sauer Hall	82,478	1970	
K.	Education-Art Building	53,342	1950, 1986	
L.	American Indian Resource Center			
M.	Chet Anderson Stadium			
N.	Birch Hall	62,184	1952	
O.	Decker Hall	29,423	1957, 1964, 1979	
P.	Linden Hall	67,565	1959, 1964	
Q.	Electrical Substation			
R.	Tamarack Hall	88,410	1969	
S.	John Glass Field House	121,586	1959, 1967	
T.	Gillet Fitness and Rec. Center	85,765	1959, 1989	
U.	Cedar Hall	39,133	1959, 1991	
V.	Pine Hall	50,264	1961	
W.	Walnut Food Service	57,167	1969, 1991	
X.	Oak Hall	128,550	1965, 1966	
Y.	Not Used			
Z.	Maintenance/ Receiving	6,240	1979	
AA.	Baseball Stadium			
AB.	Athletic Field Sanitation Building			
AC.	Otter Tail Sub Station			
AD.	Alumni Park House			
AE.	1509 House			

- Academic
- Residential
- Administration
- Student Life
- Athletic/Student Rec.
- Support
- Alumni Center
- Former High School Site

Energy Analysis - BSU

Tracking Trends

BSU tracks energy consumption through the online B3 Benchmarking Tool. While many types of analysis are possible, Energy Use Intensity (EUI) gives a good overview of how much energy a campus consumes per square foot. EUI is measured in kBtu/SF.

2010 saw a dramatic decrease in consumption, which has held on through 2013. See the graph for annual energy consumption on the BSU campus.

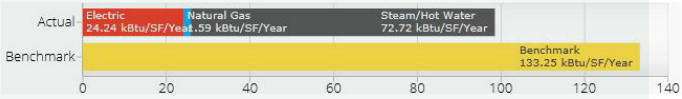
Measuring Consumption

Unique in the MnSCU system, the BSU campus has separate meters for each building. Separate metering allows BSU to identify buildings with the greatest opportunity for reduction in energy use.

When compared to similar building types in the B3 system, Tamarack, Pine, Maple, and Oak Halls are all in the 30th percentile of dorms. Deputy and Education/Art are below the 50th percentile. The remaining campus buildings, compared to peer buildings in the system, are above average.

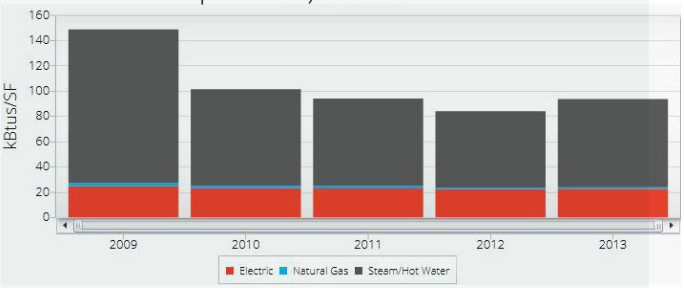
Benchmark By Fuel Source

Based on 27 of 33 benchmark-complete sites.



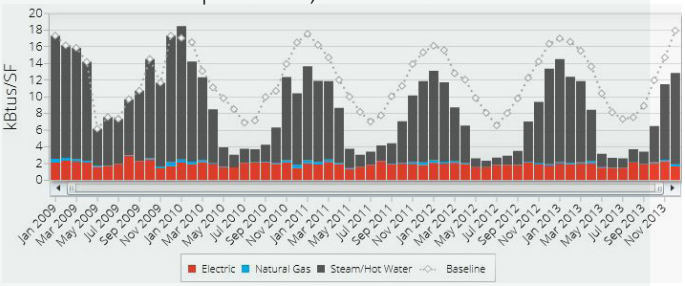
Annual EUI

Per square Foot, Weather Normalized



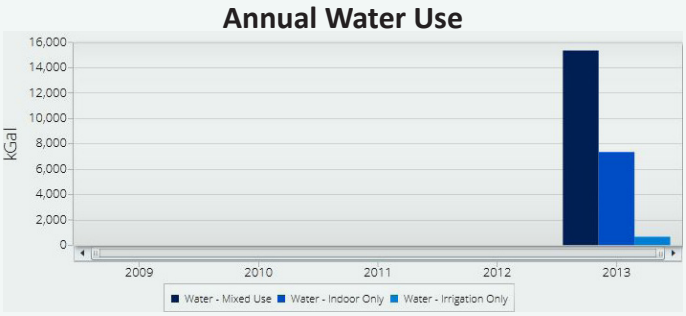
Monthly Continuous EUI

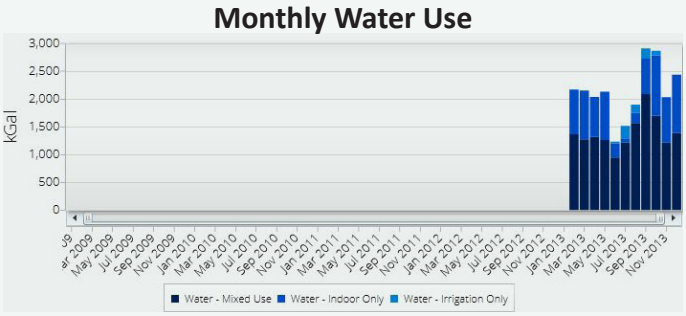
Per Square Foot, Weather Normalized



Bemidji State University

Water Analysis

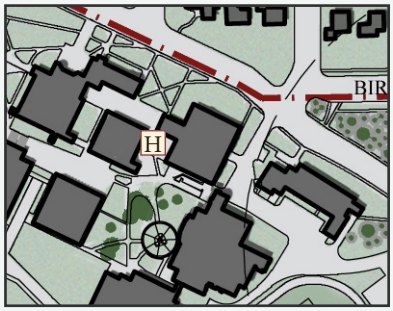




A.C. Clark Library

Fast Facts:

Letter on Key Plan	H.
Building Number	070S1366
Building Use	Academic
Year Built	1966, 1999
Building Size	71,462
Number of Floors	4
Current Replacement Value	$19,197,000
Backlog of Repairs Value	$737,000
Current Facility Condition Index (FCI)	0.04
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Exterior View

Main Entry

Circulation Desk

Main Level Stacks

Study Tables Along Windows

Lower Level

A.C. Clark Library (cont.)

Space Utilization Summary:

- Typical library functions including book stacks, media center, quiet study space, small group study rooms, study tables.
- Campus Space Utilization data not available.

Condition Summary:

- Building appears to be in good condition overall.
- Interior finishes, including furnishings, appear dated.
- Spaces are generally well lit
- Northwest corner of the plaza has drainage issues, creating ice hazards during winter conditions.

Structural System:

- Concrete structural system

Technology Considerations:

- While power/data receptacles are available at the building perimeter, center study tables do not have power available for laptop use.
- Group study rooms lack “smart” technology.

Current HEAPR Requests:

Additional Comments:

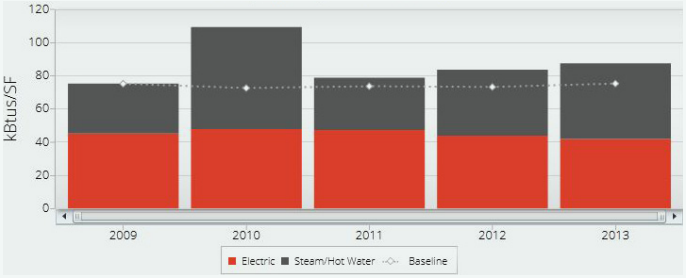
- Group study rooms are relatively small and generally cannot accommodate groups larger than 8 students.

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

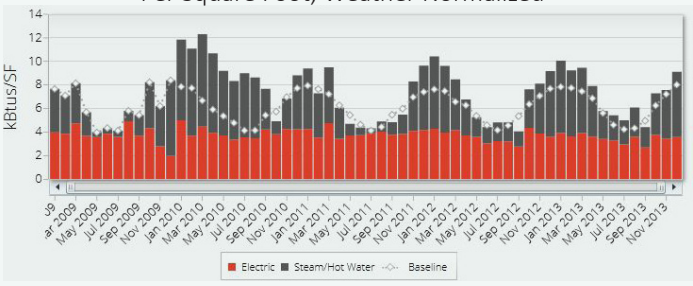
Annual EUI

Per square Foot, Weather Normalized



Monthly Continuous EUI

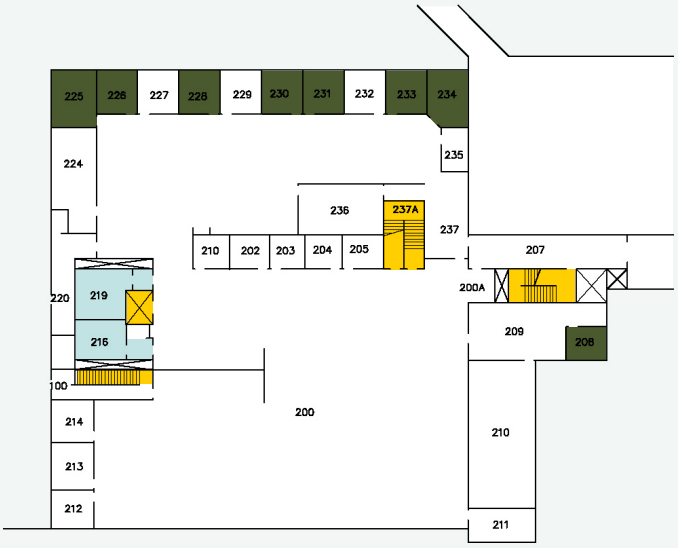
Per Square Foot, Weather Normalized



A.C. Clark Library (cont.)

Fourth Floor

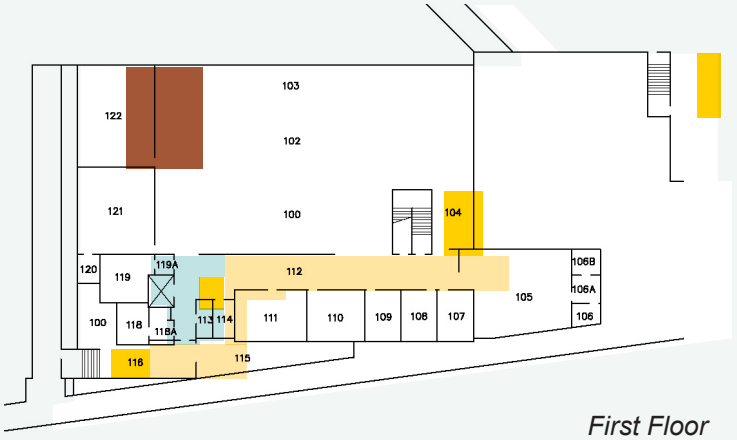
Third Floor



Second Floor

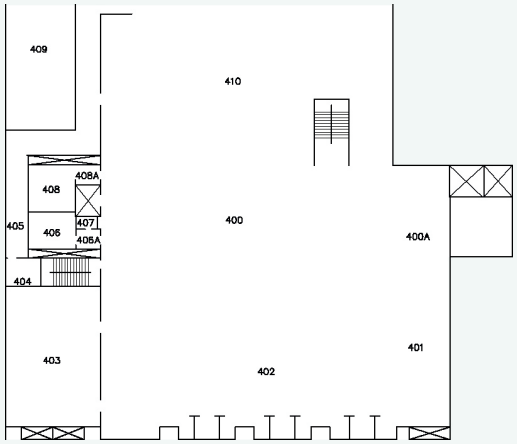
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

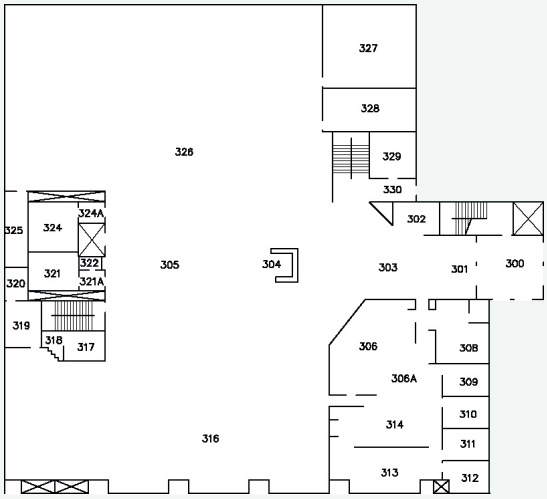


First Floor

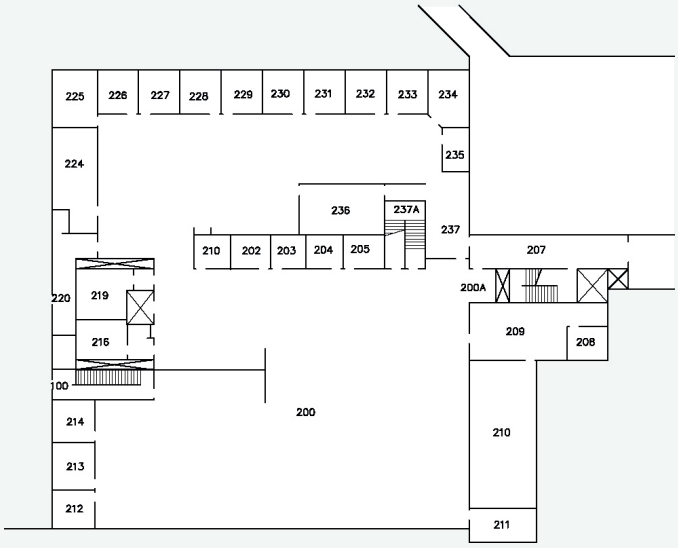
A.C. Clark Library (cont.)



Fourth Floor

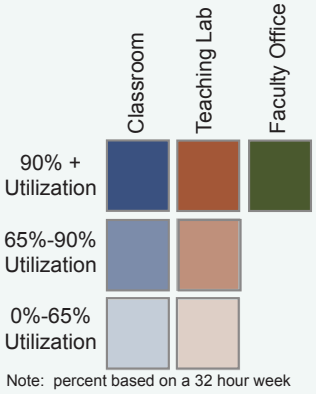


Third Floor

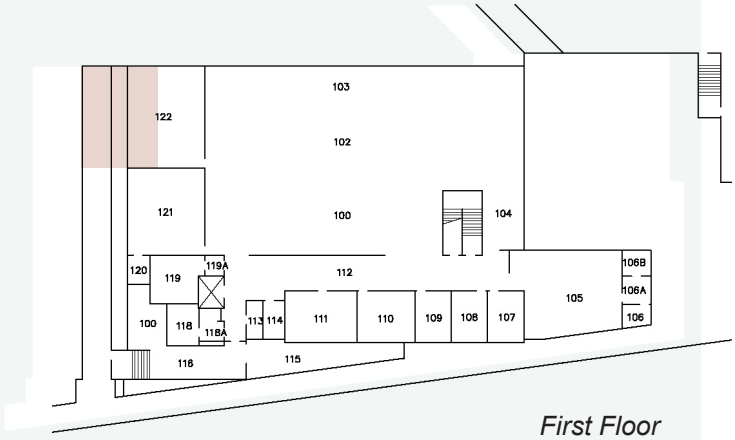


Second Floor

Space Utilization



Note: percent based on a 32 hour week

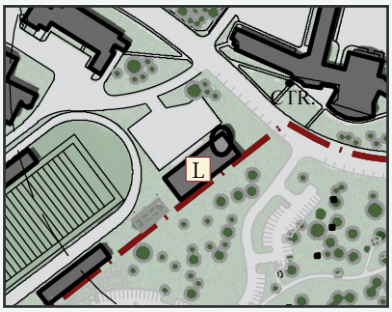


First Floor

American Indian Resource Center

Fast Facts:

Letter on Key Plan	L.
Building Number	070S9302
Building Use	Student Services
Year Built	
Building Size	10,388
Number of Floors	
Current Replacement Value	$2,925,000
Backlog of Repairs Value	$0
Current Facility Condition Index (FCI)	0.00
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan


Exterior View


Shared Office Area

Lounge Space


Great Gathering Room


Classroom


Hallway

American Indian Resource Center (cont.)

Space Utilization Summary:

- Seat Usage Percent: 96%
- Hours Usage Percent: 84%
- The building supports the mission of the American Indian Resource Center to assist American Indian students to succeed academically, culturally, and socially. Spaces include a Gathering Place, classroom with "smart" technology, reception area, and staff offices.

Condition Summary:

- Condition is excellent.

Structural System:

- Glulam beams, wood at Gathering room.
- Unobserved elsewhere, but most likely steel and load bearing masonry based on building size and age.

Technology Considerations:

- "Smart" technology is present in classrooms.

Current HEAPR Requests:

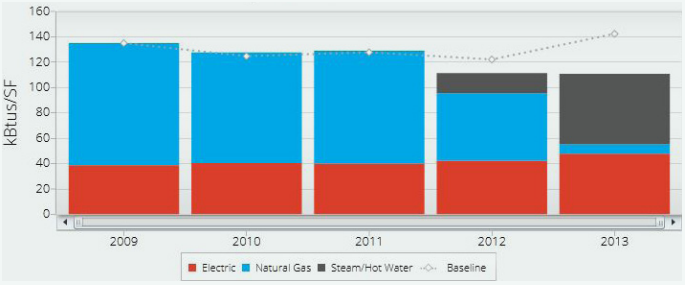
Additional Comments:

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

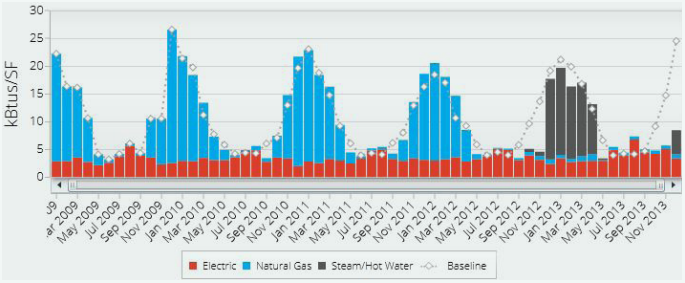
Annual EUI

Per square Foot, Weather Normalized

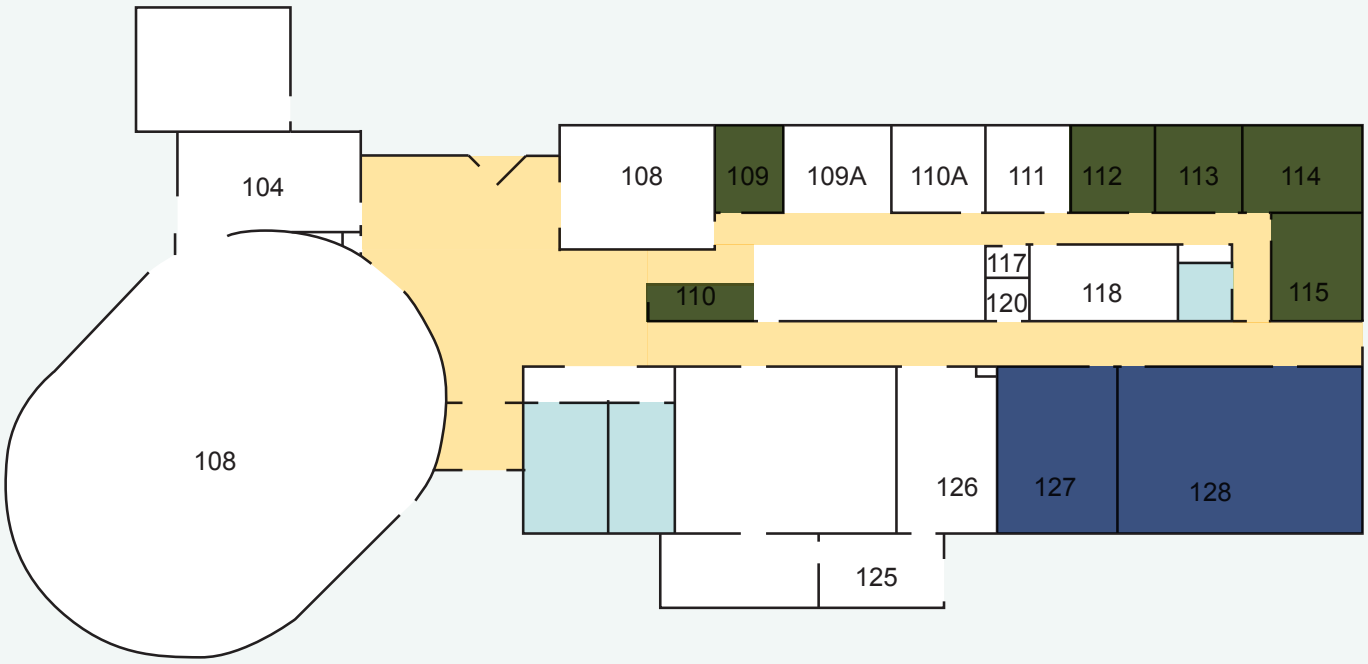


Monthly Continuous EUI

Per Square Foot, Weather Normalized



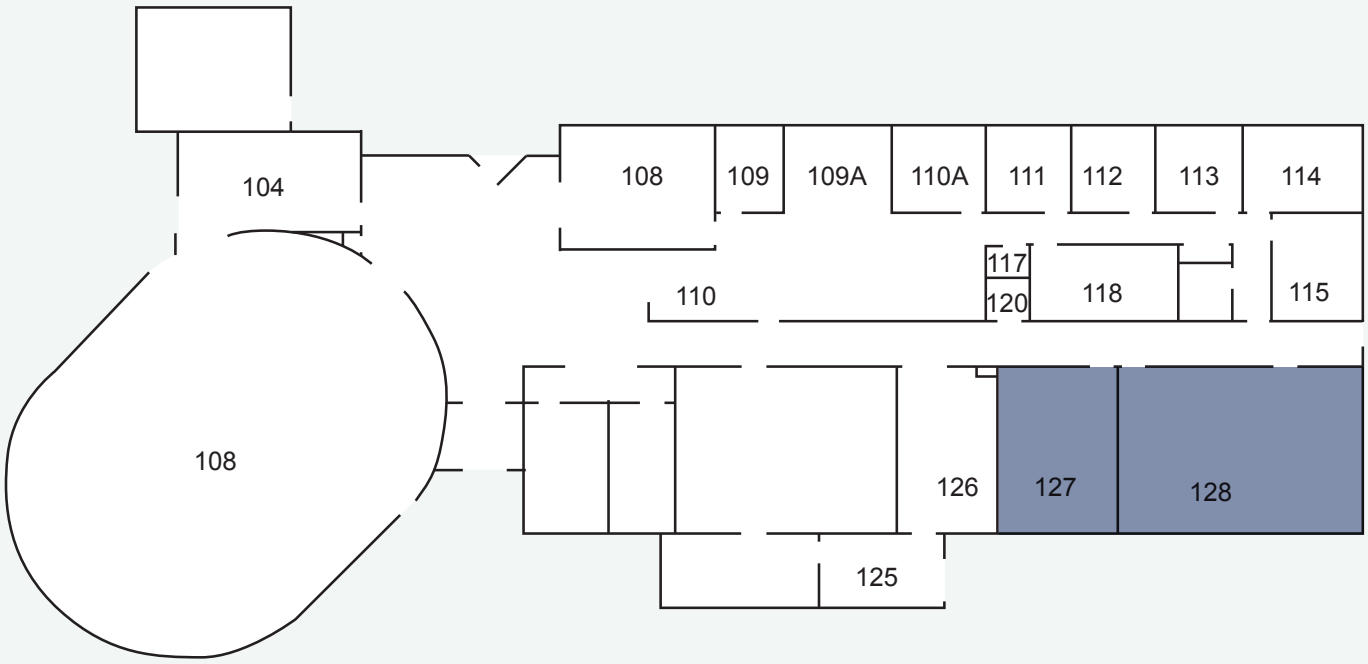
American Indian Resource Center (cont.)



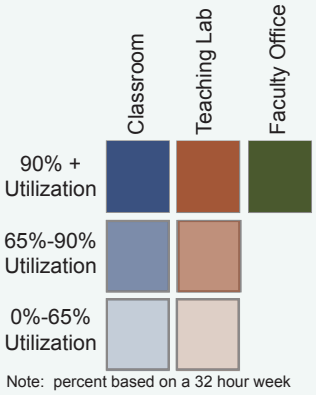
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

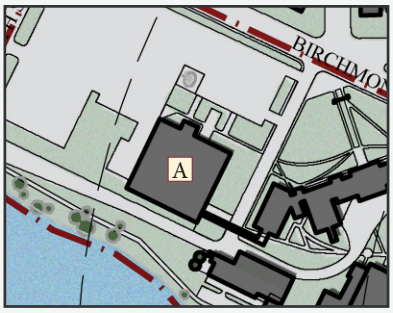
American Indian Resource Center (cont.)



Space Utilization



Bangsberg Fine Arts Center



Keyplan

Fast Facts:

Letter on Key Plan	A.
Building Number	070S1671
Building Use	Academic
Year Built	1971
Building Size	86,878
Number of Floors	3 + basement
Current Replacement Value	$23,900,000
Backlog of Repairs Value	$4,490,000
Current Facility Condition Index (FCI)	0.19
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Exterior View

Main Entry Gallery Space

Hallway Near Performance Spaces

Typical Corridor

Student Lounge Space

Non-Standard Signage

Bangsberg Fine Arts Center (cont.)

Space Utilization Summary:

- Seat Usage Percent: 96%
- Hours Usage Percent: 84%
- Building houses a recital hall, main stage, general classrooms, practice areas for band/orchestra, individual practice rooms, faculty offices, and support spaces

Condition Summary:

-

Structural System:

- Concrete structure
- Metal deck, joists at roof

Technology Considerations:

- Building lacks "smart" classrooms and computer labs.
- Lounge spaces lack adequate power for use of laptops.

Current HEAPR Requests:

Additional Comments:

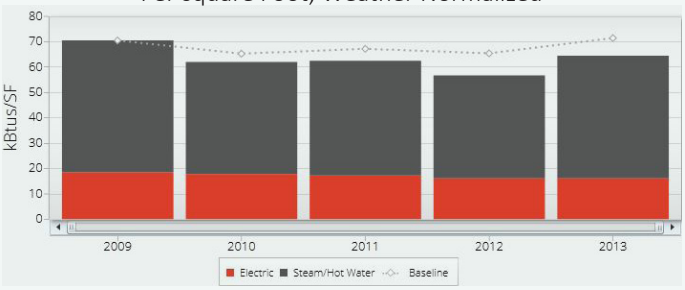
- Building lacks wayfinding signage and an overall identification system.
- Faculty offices enjoy lake views.
- Corridors seem dark and lack interest.

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

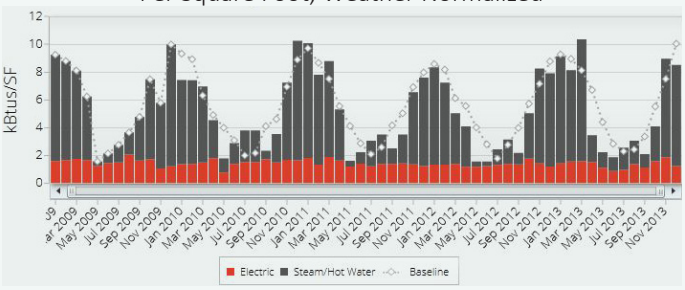
Annual EUI

Per square Foot, Weather Normalized

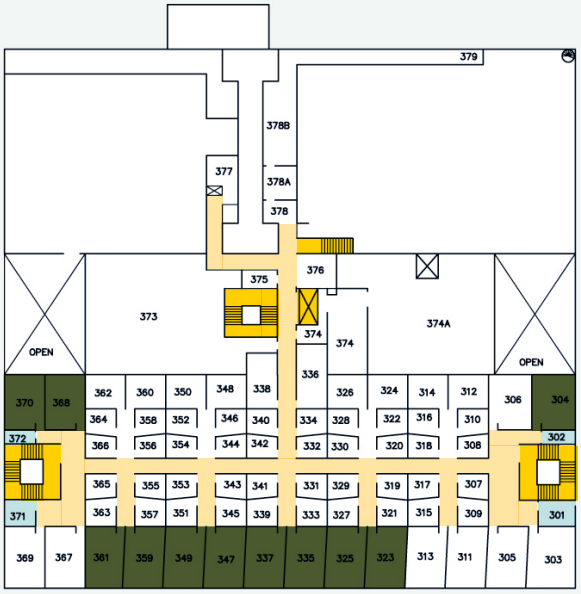


Monthly Continuous EUI

Per Square Foot, Weather Normalized



Bangsberg Fine Arts Center (cont.)



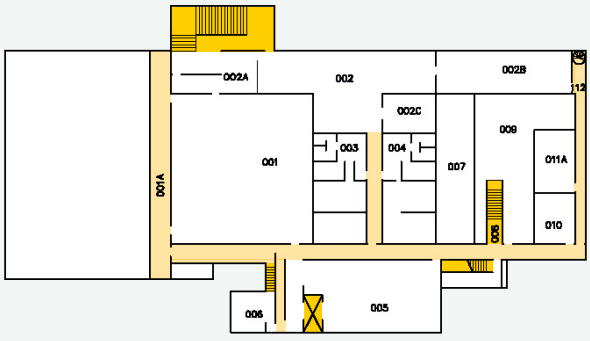
Third Floor

Second Floor

First Floor

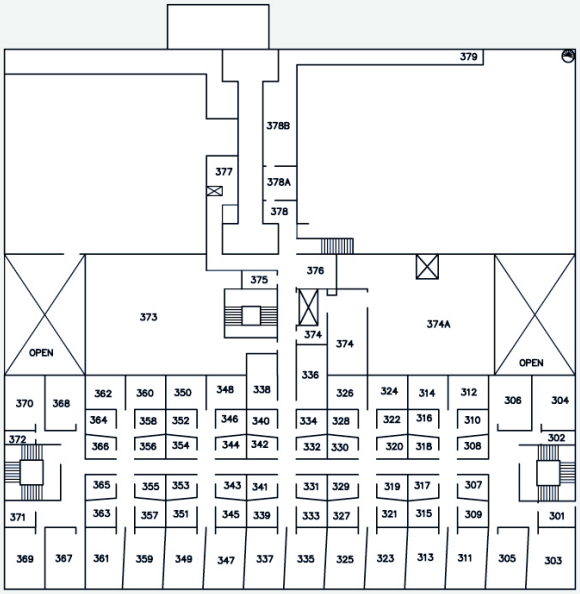
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

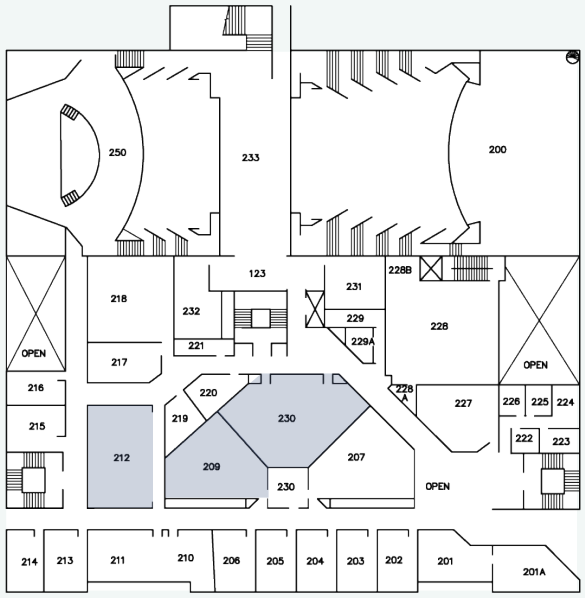


Basement

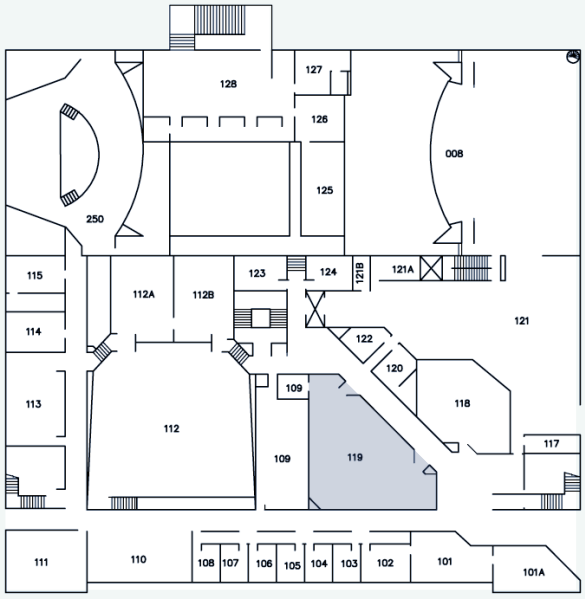
Bangsberg Fine Arts Center (cont.)



Third Floor

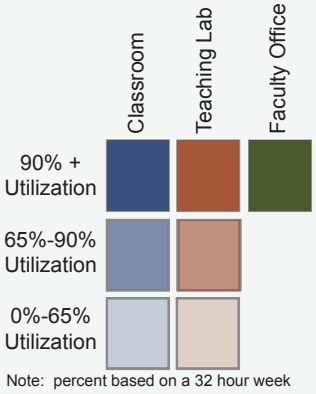


Second Floor

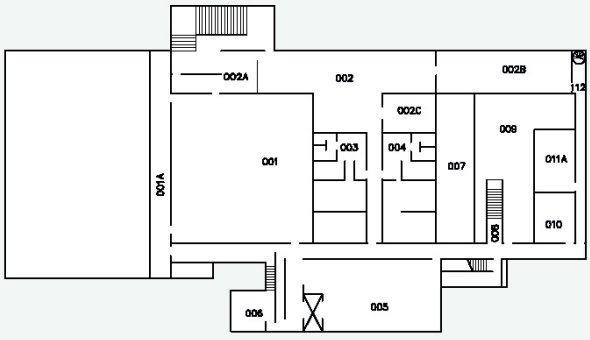


First Floor

Space Utilization



Note: percent based on a 32 hour week



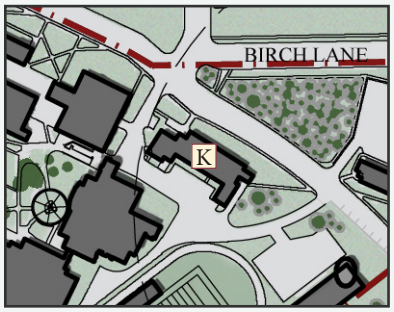
Basement

Bensen - Education Art Building

see Renovation Plans in Sec. 5

Fast Facts:

Letter on Key Plan	K.
Building Number	070S0650
Building Use	Academic
Year Built	1950, 1986
Building Size	53,342
Number of Floors	4 + basement
Current Replacement Value	$14,330,000
Backlog of Repairs Value	$2,719,000
Current Facility Condition Index (FCI)	0.19
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Approach from West

Main Entrance

Art Gallery

Informal Seating Area

Art Studio

Typical Corridor

Bensen - Education Art Building (cont.)

Space Utilization Summary:

- Seat Usage Percent: 40%
- Hours Usage Percent: 74%
- Building contains general purpose classrooms, art studios, art gallery, faculty offices, and a large lecture hall.

Condition Summary:

- Interior finishes need updating.
- Additional ventilation is needed in the art studios.

Structural System:

Technology Considerations:

- Additional “smart” technology is needed in class-rooms and studios.

Current HEAPR Requests:

Additional Comments:

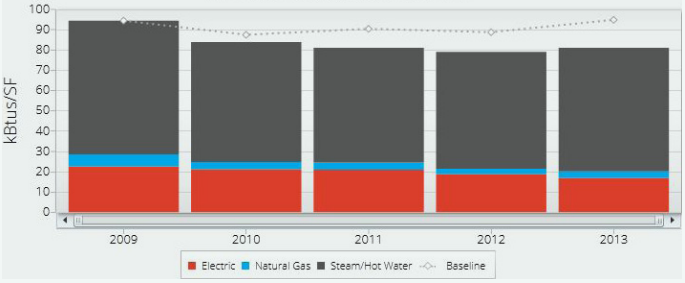
- Corridor lighting is a mixture of 2x4 and can fluorescent resulting in a dated look and uneven light.

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

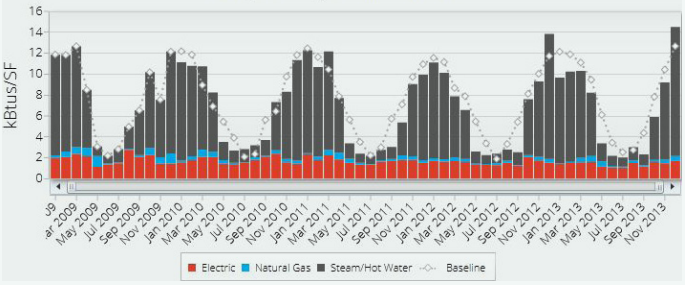
Annual EUI

Per square Foot, Weather Normalized

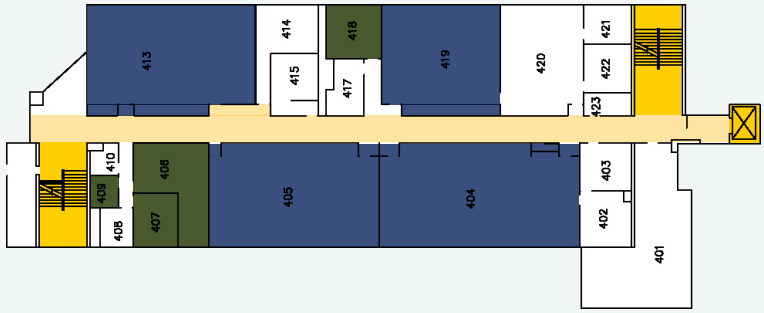


Monthly Continuous EUI

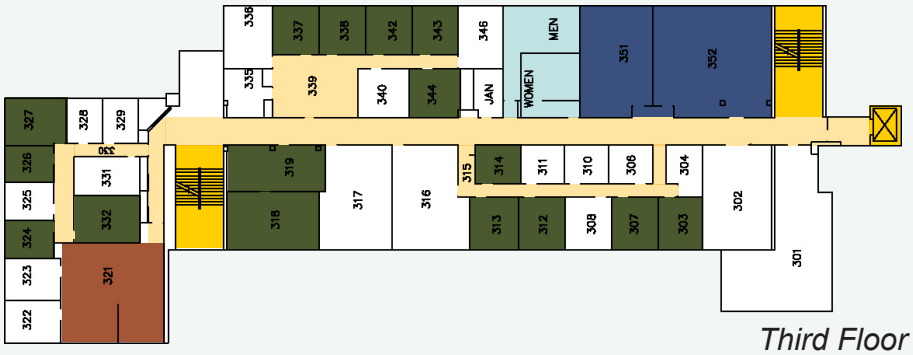
Per Square Foot, Weather Normalized



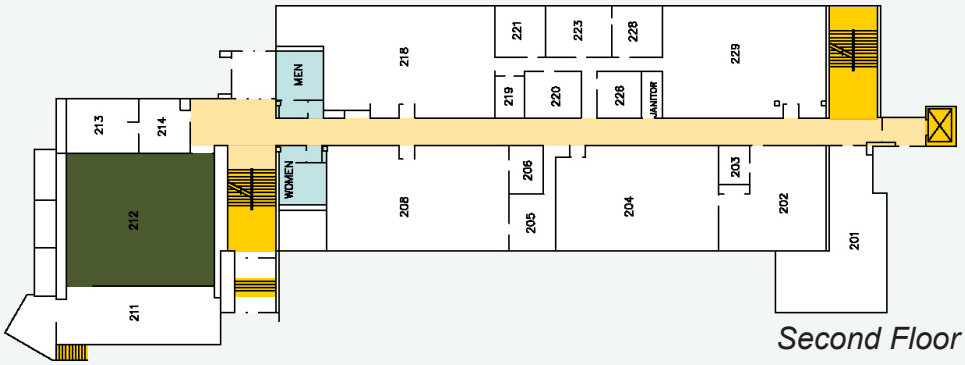
Bensen - Education Art Building (cont.)



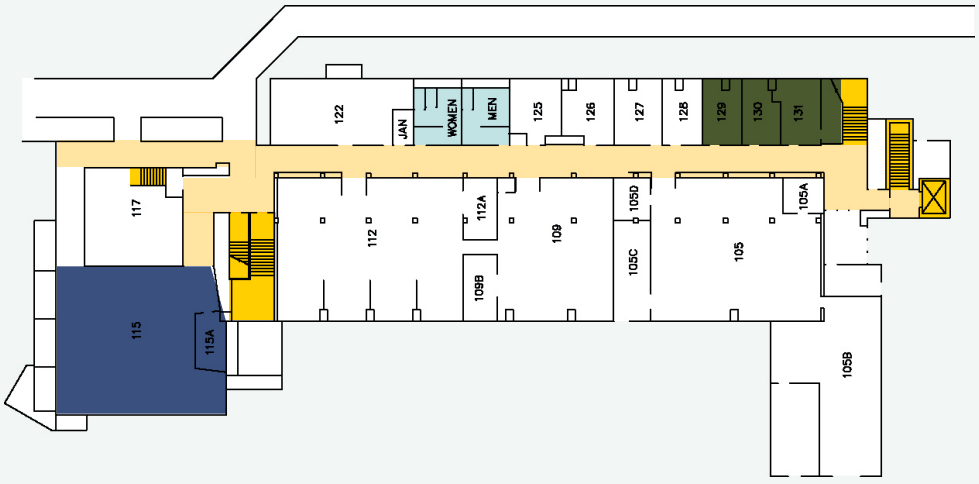
Fourth Floor



Third Floor



Second Floor

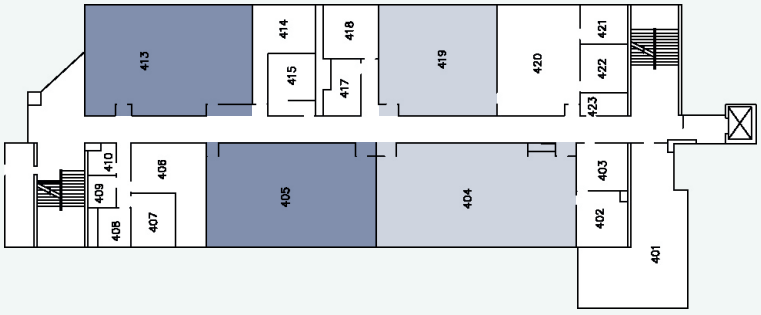


First Floor

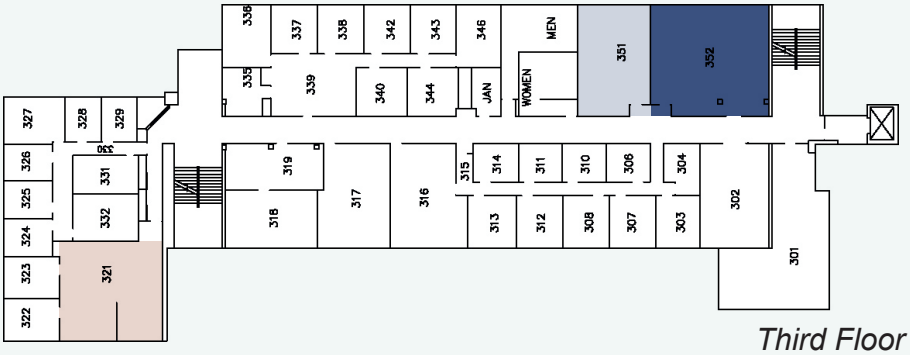
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

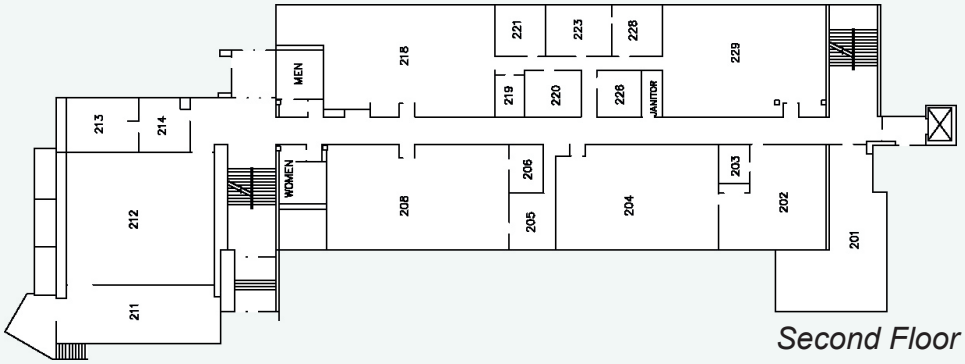
Bensen - Education Art Building (cont.)



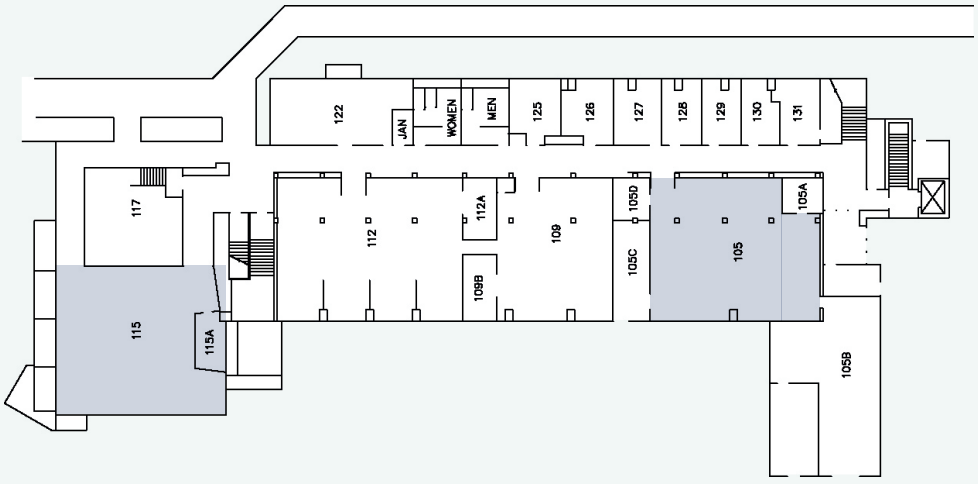
Fourth Floor



Third Floor

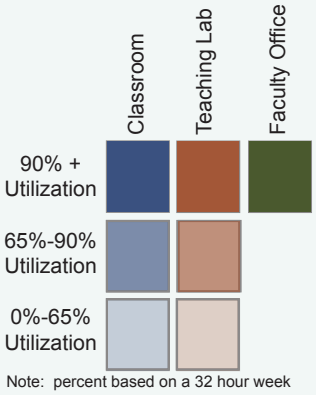


Second Floor



First Floor

Space Utilization

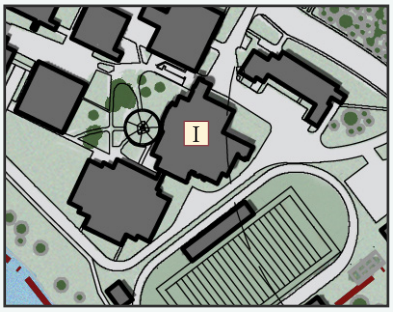


Note: percent based on a 32 hour week

Bridgeman Hall

Fast Facts:

Letter on Key Plan	I.
Building Number	070S1264
Building Use	Academic
Year Built	1964
Building Size	33,772
Number of Floors	2
Current Replacement Value	$9,072,000
Backlog of Repairs Value	$0
Current Facility Condition Index (FCI)	0.00
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Exterior View

Main Entry

Main Corridor

Recently Remodeled Classroom

Lab Space

Art Gallery

Bridgeman Hall (cont.)

Space Utilization Summary:

- Seat Usage Percent: 29%
- Hours Usage Percent: 29%
- Building houses the Department of Technological Studies and therefore includes several trade-type labs in addition to an art gallery, general classrooms, and faculty offices.

Condition Summary:

- Building was remodeled and expanded less than 10 years ago and is in good condition.
- One seminar-sized room on the first floor is unfinished and appears to be used for storage.

Structural System:

- Original Structure: Concrete waffle slab, concrete columns.
- Addition: Load bearing masonry, steel beams, concrete deck, metal roof deck, metal bar joists at roof.

Technology Considerations:

- No deficiencies noted.

Current HEAPR Requests:

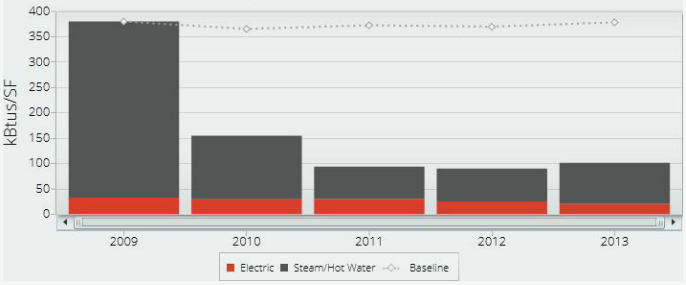
Additional Comments:

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

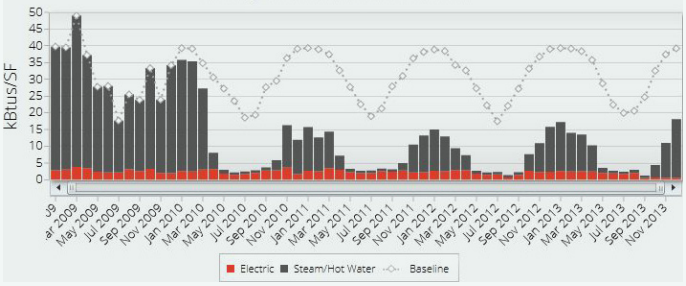
Annual EUI

Per square Foot, Weather Normalized

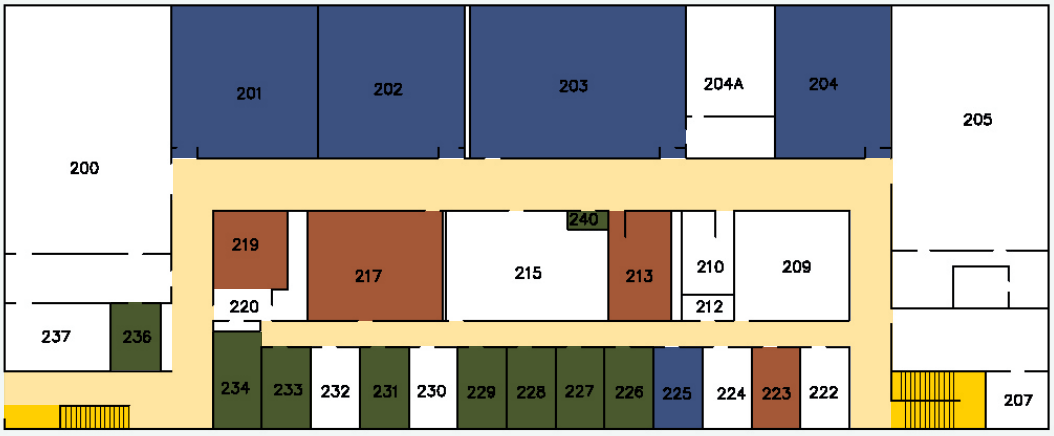


Monthly Continuous EUI

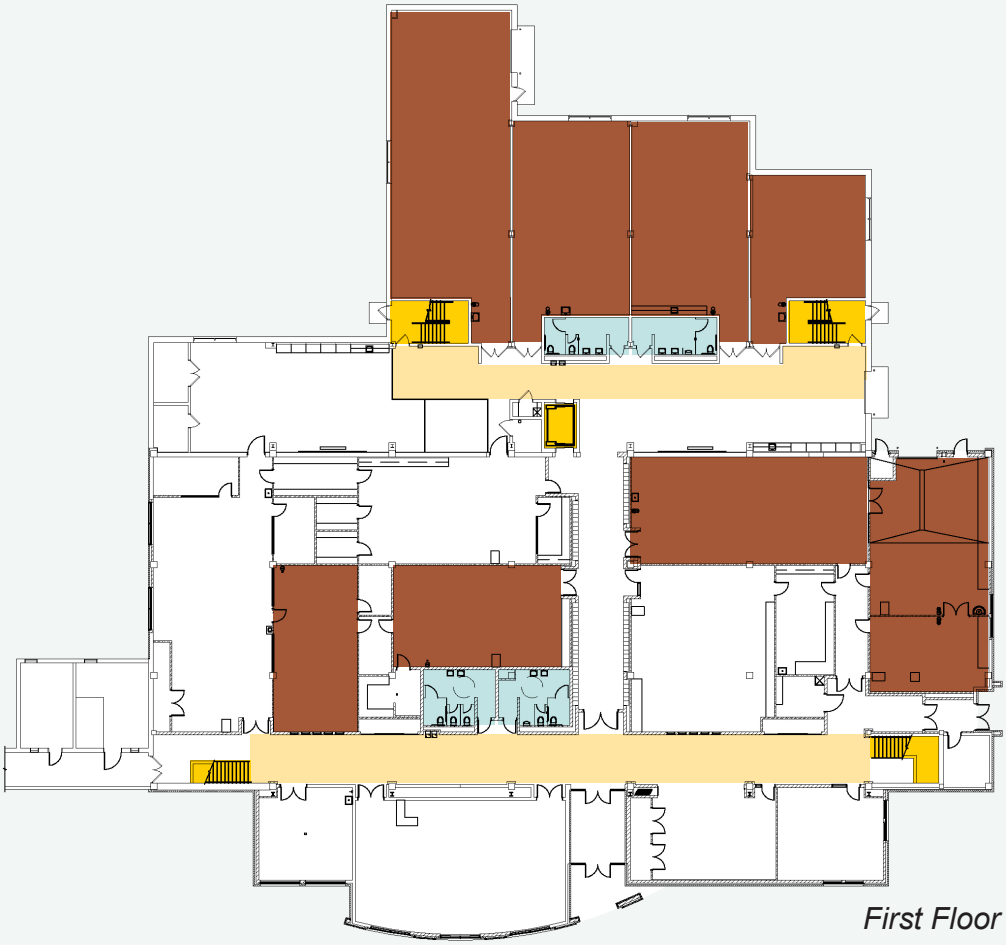
Per Square Foot, Weather Normalized



Bridgeman Hall (cont.)



Second Floor



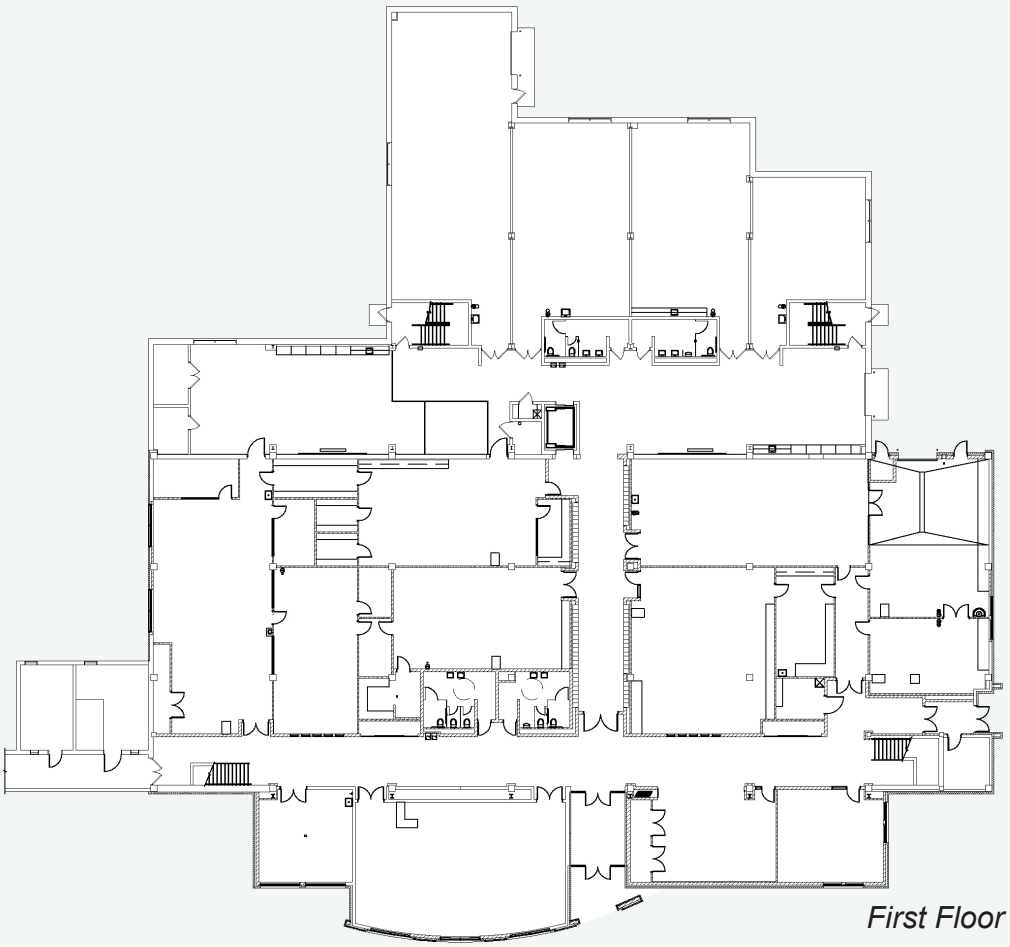
First Floor

Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

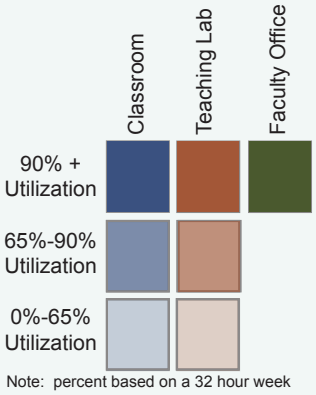
Bridgeman Hall (cont.)

Second Floor



First Floor

Space Utilization



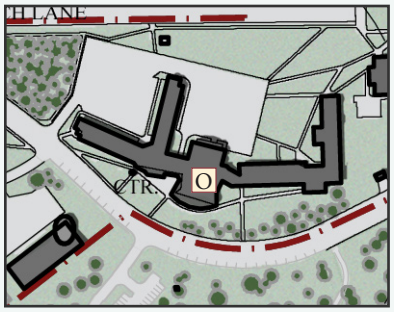
Note: percent based on a 32 hour week

Decker Hall

see Renovation Plans in Sec. 5

Fast Facts:

Letter on Key Plan	O.
Building Number	070S9657
Building Use	Academic
Year Built	1957, 1964, 1979
Building Size	29,423
Number of Floors	2
Current Replacement Value	$6,617,000
Backlog of Repairs Value	$956,000
Current Facility Condition Index (FCI)	0.14
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Exterior View

Building Corridor

Classroom

Corridor near Faculty Offices

Classroom

Tunnel Connection to Linden Hall

Decker Hall (cont.)

Space Utilization Summary:

- Seat Usage Percent: 47%
- Hours Usage Percent: 79%
- Building contains general purpose classrooms, a computer lab, study space, faculty offices, and department offices for a number of programs.

Condition Summary:

- Furnishings and finishes are outdated

Structural System:

- Concrete structural system.

Technology Considerations:

- Some "smart" technology is present, with other classrooms equipped with overhead projectors.

Current HEAPR Requests:

Additional Comments:

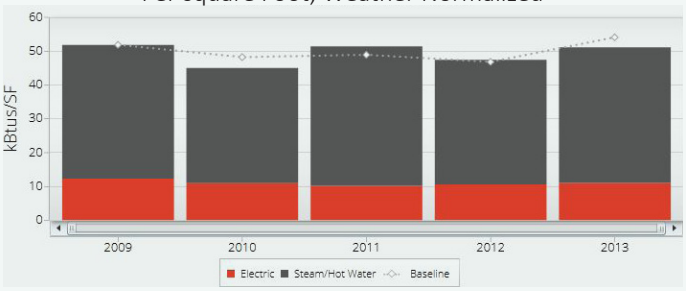
- Prior master facilities plan included the demolition of the building.
- Tunnel connection to adjacent residence halls is not well marked and narrow.

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

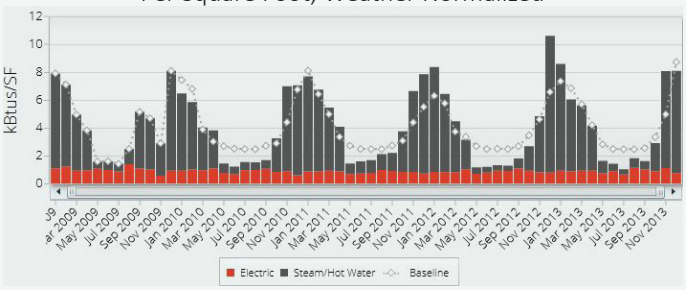
Annual EUI

Per square Foot, Weather Normalized

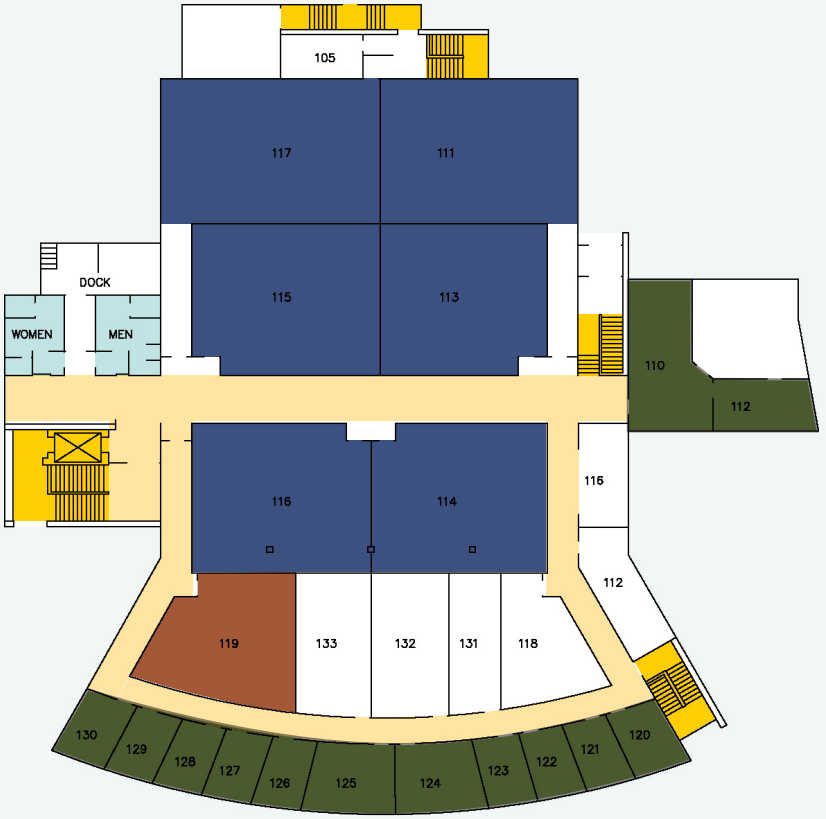


Monthly Continuous EUI

Per Square Foot, Weather Normalized



Decker Hall (cont.)



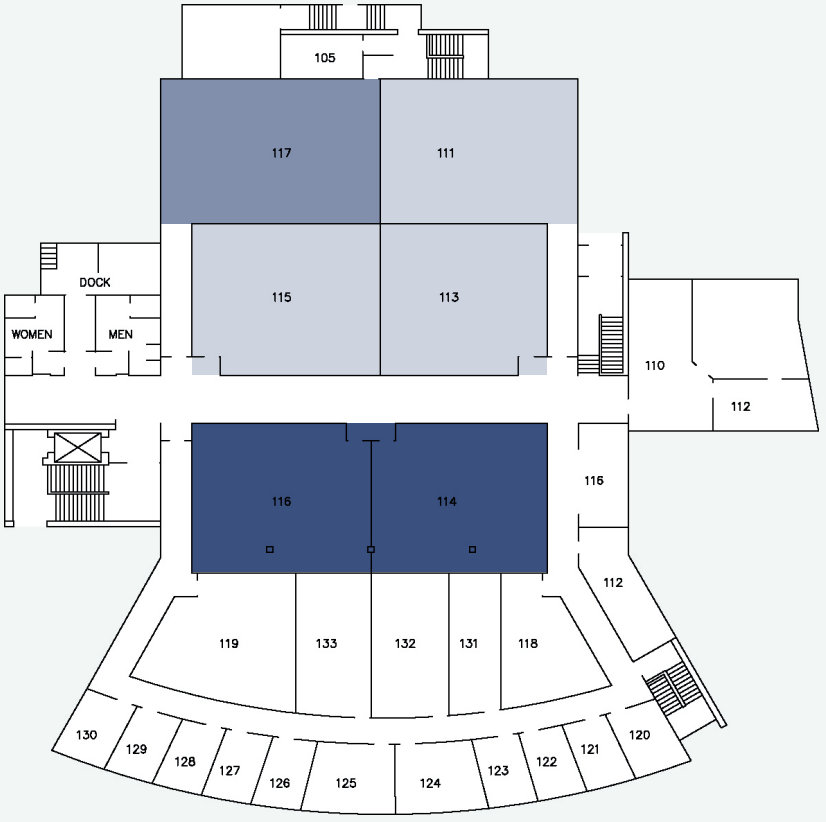
Main Floor

Basement

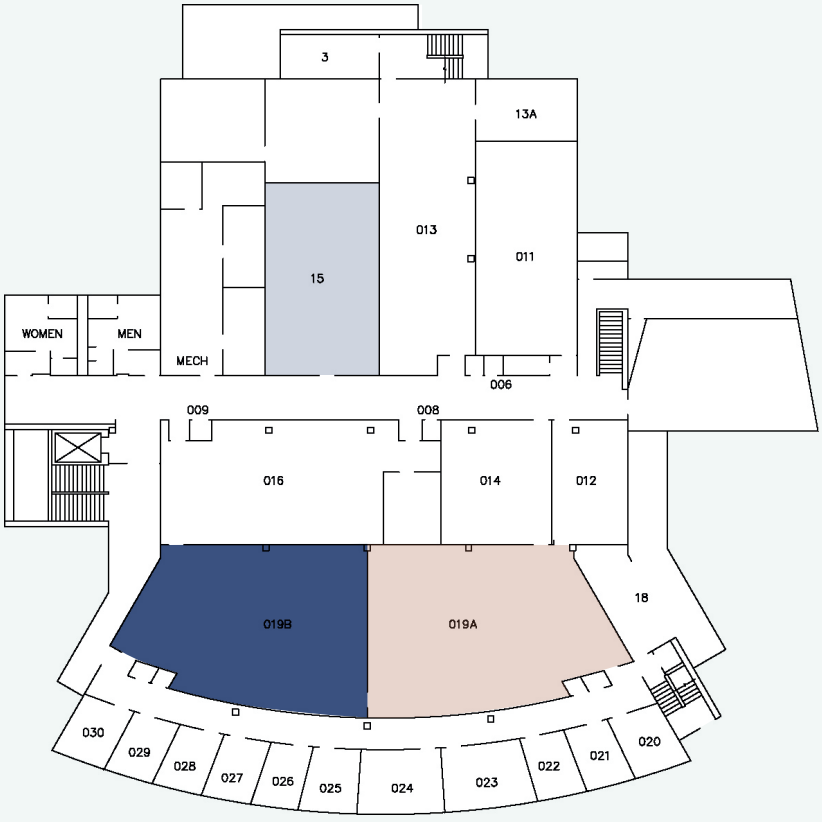
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

Decker Hall (cont.)

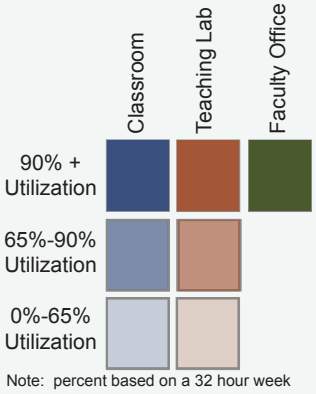


Main Floor



Basement

Space Utilization

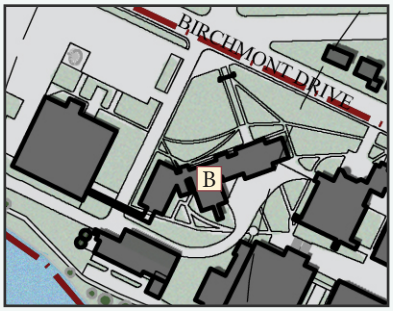


Note: percent based on a 32 hour week

Deputy Hall

Fast Facts:

Letter on Key Plan	B.
Building Number	070S0118
Building Use	Academic Administration
Year Built	1916
Building Size	78,656
Number of Floors	3 + basement
Current Replacement Value	$21,130,000
Backlog of Repairs Value	$2,730,000
Current Facility Condition Index (FCI)	0.14
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan


Exterior View

Main Entrance Lobby


Entry from Bangsberg Skyway


Service Counters


ITV/Computer Classroom near IT


Administrative Offices

Deputy Hall (cont.)

Space Utilization Summary:

- Seat Usage Percent: 20%
- Hours Usage Percent: 31%
- Building contains general purpose classrooms, a computer labs, IT offices, University business offices, University administration, some student service offices, and Lakeland Public Television

Condition Summary:

- Finishes appear dated and drab.

Structural System:

- Concrete structural system with concrete floor slabs.

Technology Considerations:

- Computer labs near IT offices appear updated and well equipped.

Current HEAPR Requests:

Additional Comments:

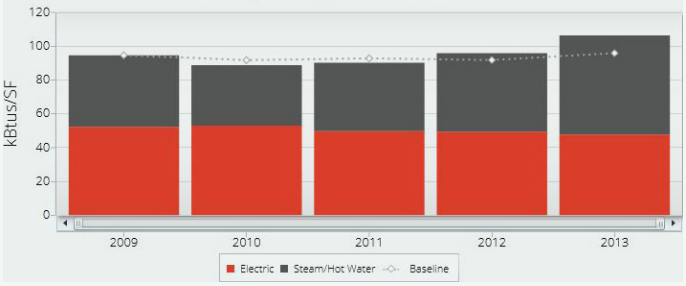
- Main entrance lobby by Admissions does not capture the spirit of the institution and does not present a good first impression.

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

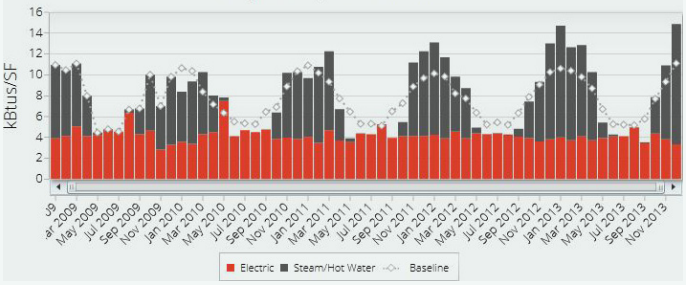
Annual EUI

Per square Foot, Weather Normalized

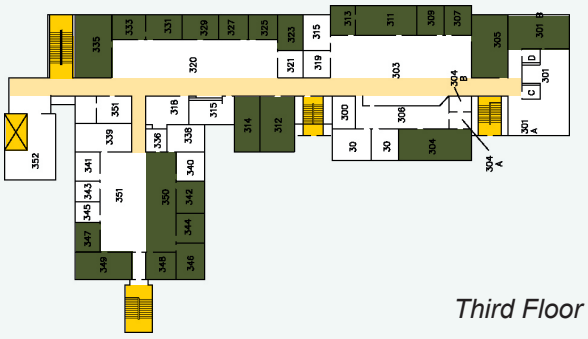


Monthly Continuous EUI

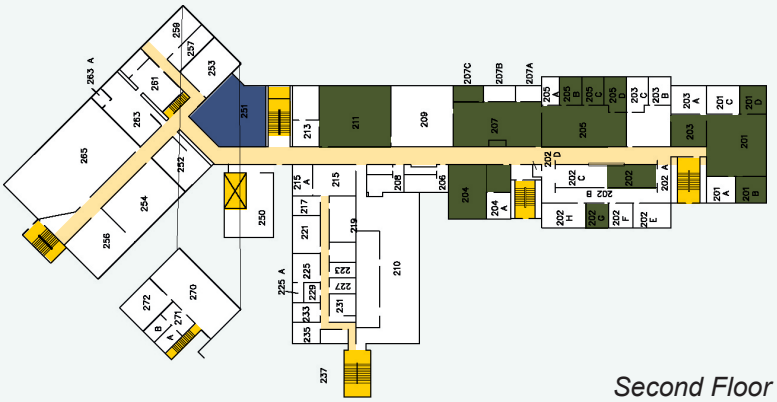
Per Square Foot, Weather Normalized



Deputy Hall (cont.)



Third Floor

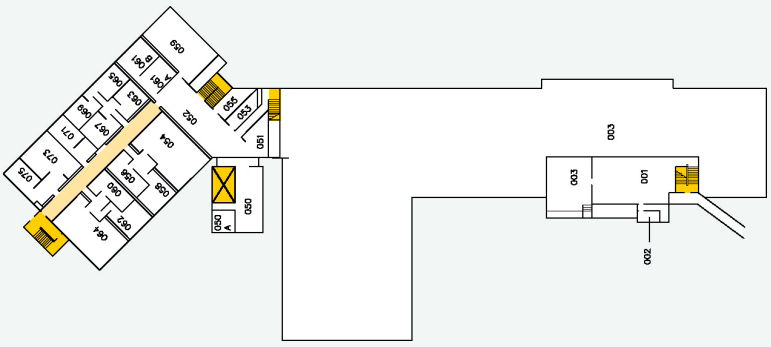


Second Floor

First Floor

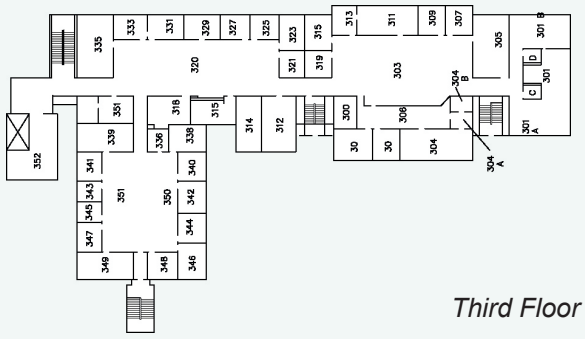
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

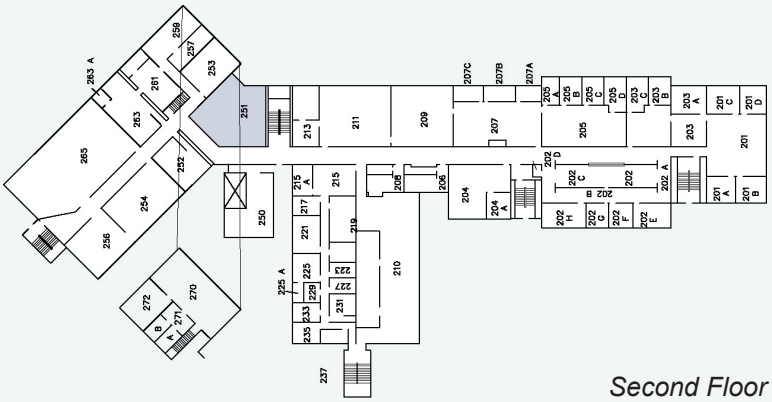


Basement

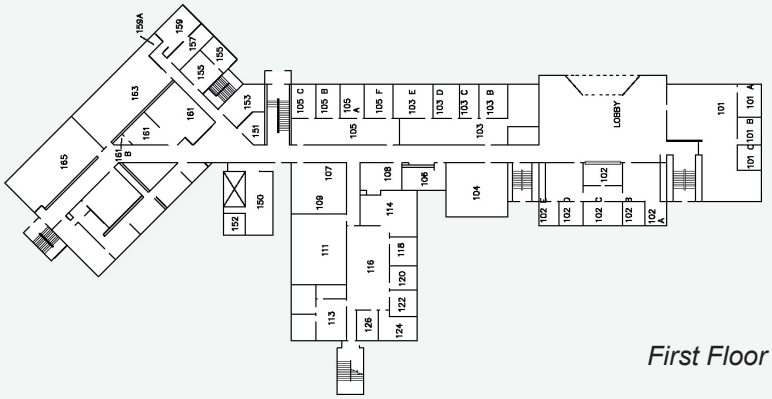
Deputy Hall (cont.)



Third Floor

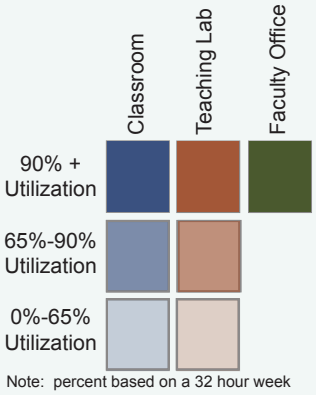


Second Floor

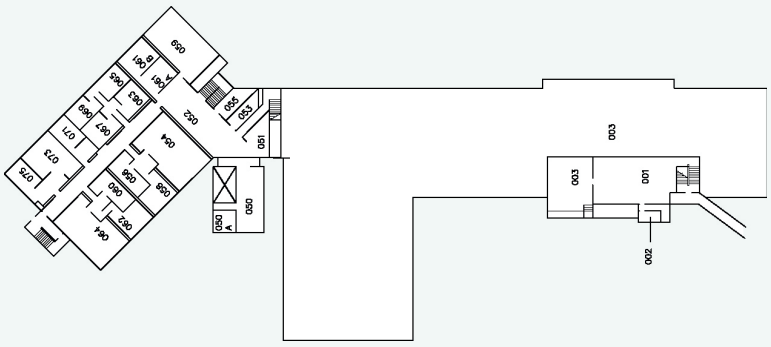


First Floor

Space Utilization

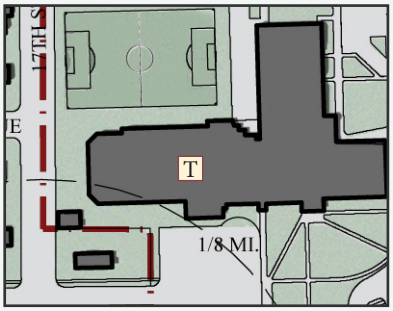


Note: percent based on a 32 hour week



Basement

Gillet Fitness and Recreation Center



Keyplan

Fast Facts:

Letter on Key Plan	T.
Building Number	070S2189
Building Use	Athletic
Year Built	1959, 1989
Building Size	85,765
Number of Floors	2
Current Replacement Value	$23,040,000
Backlog of Repairs Value	$2,599,000
Current Facility Condition Index (FCI)	0.11
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	


Exterior View


Entrance Lobby


Corridor with Lockers


Running Track


Weight Room


Climbing Wall

Gillet Fitness and Recreation Center (cont.)

Space Utilization Summary:

- Seat Usage Percent: %
- Hours Usage Percent: %
- Building contains

Condition Summary:

Structural System:

Technology Considerations:

Current HEAPR Requests:

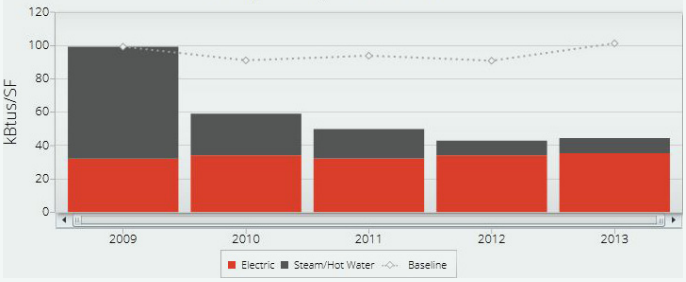
Additional Comments:

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

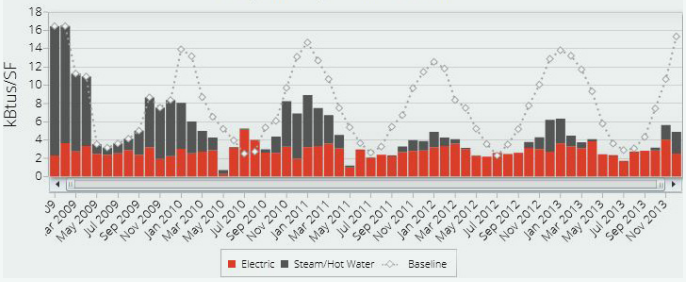
Annual EUI

Per square Foot, Weather Normalized

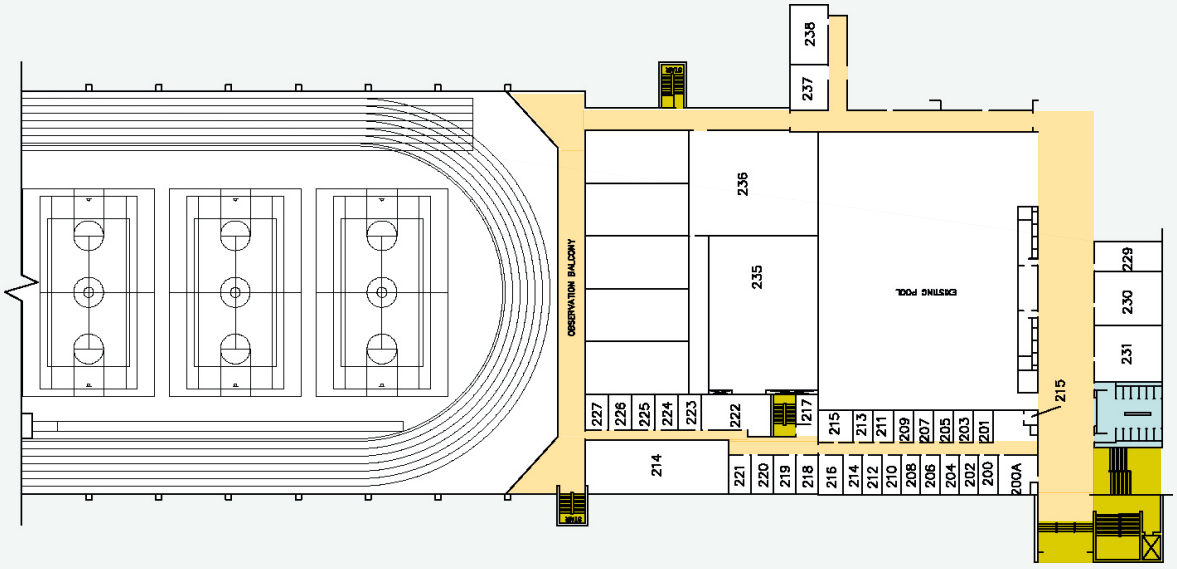


Monthly Continuous EUI

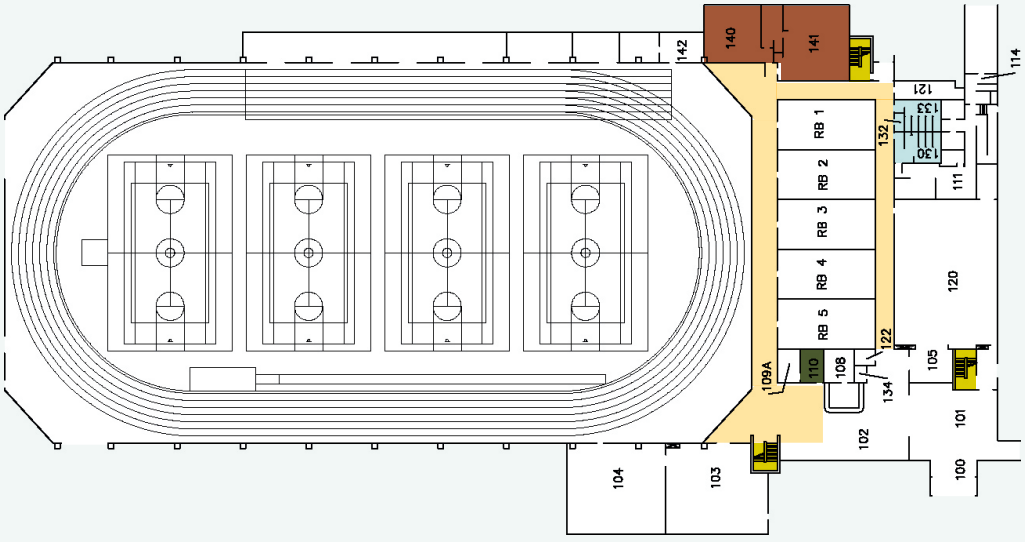
Per Square Foot, Weather Normalized



Gillet Fitness and Recreation Center (cont.)



Second Floor

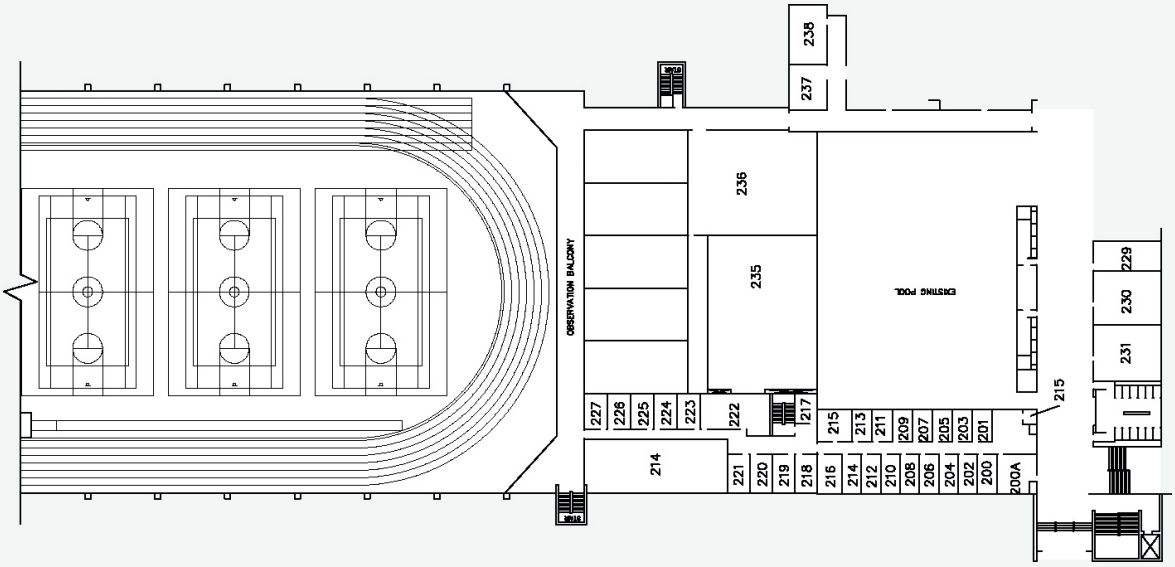


First Floor

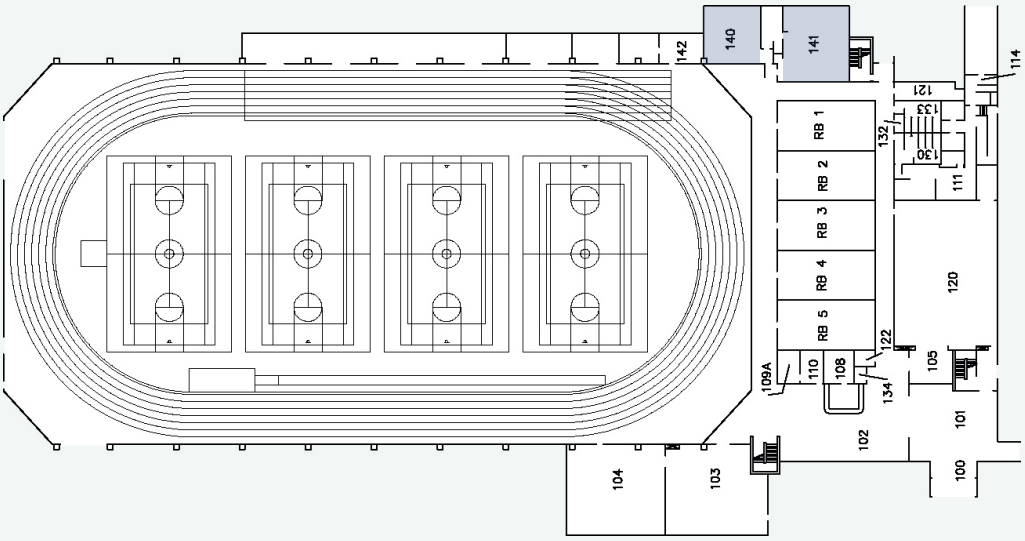
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

Gillet Fitness and Recreation Center (cont.)

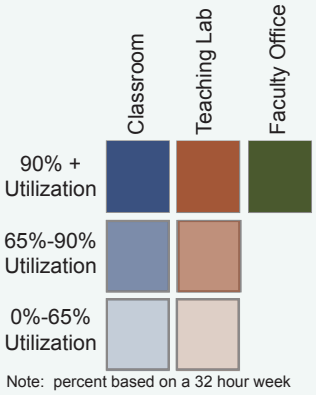


Second Floor



First Floor

Space Utilization

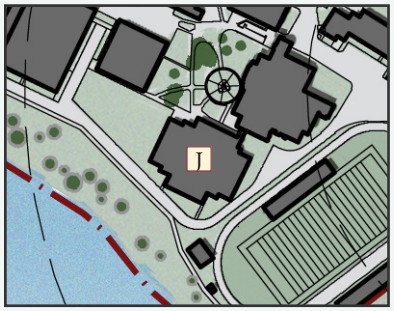


Note: percent based on a 32 hour week

Hagg-Sauer Hall

Fast Facts:

Letter on Key Plan	J.
Building Number	070S1570
Building Use	Academic
Year Built	1970
Building Size	82,478
Number of Floors	3
Current Replacement Value	$22,157,000
Backlog of Repairs Value	$5,933,000
Current Facility Condition Index (FCI)	0.27
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Exterior View

Tiered Classroom

Typical Corridor

Study Table in Corridor

Faculty Lounge

Department Office

Hagg-Sauer Hall (cont.)

Space Utilization Summary:

- Seat Usage Percent: 53%
- Hours Usage Percent: 90%
- Building contains general use classrooms, a large tiered lecture hall, computer labs, faculty and department offices.

Condition Summary:

- Interior finishes are nondescript and dated.
- Elevator is undersized.

Structural System:

Technology Considerations:

Current HEAPR Requests:

Additional Comments:

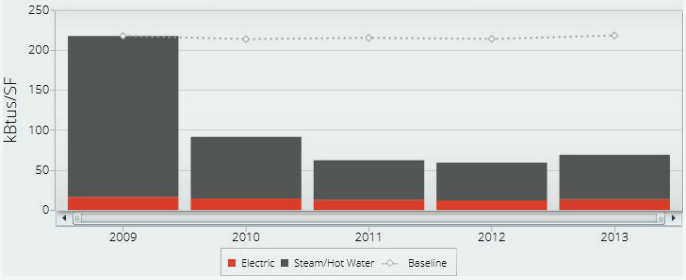
- Directional signage is lacking.
- The is a lack of student lounge and study space

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

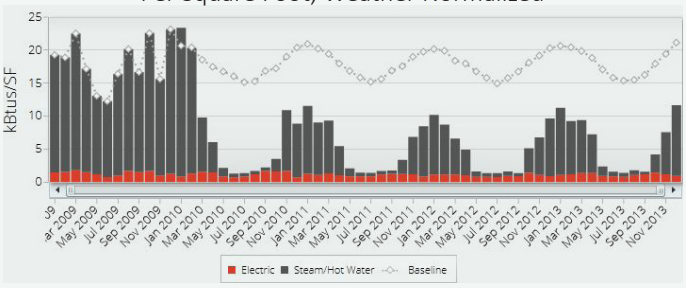
Annual EUI

Per square Foot, Weather Normalized



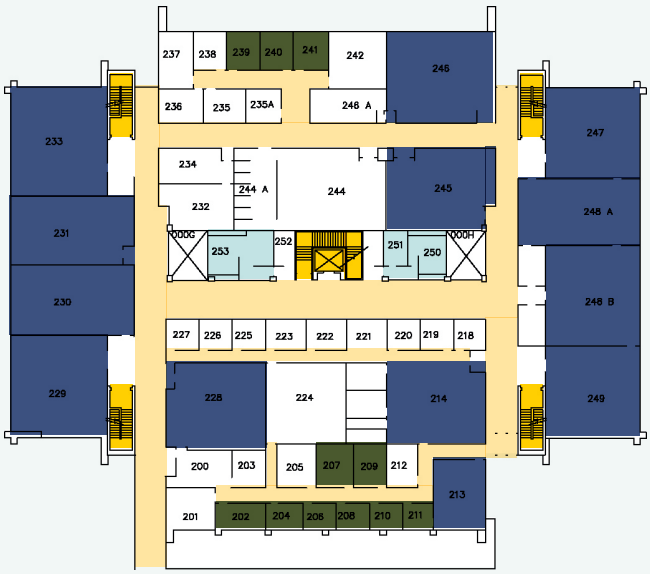
Monthly Continuous EUI

Per Square Foot, Weather Normalized

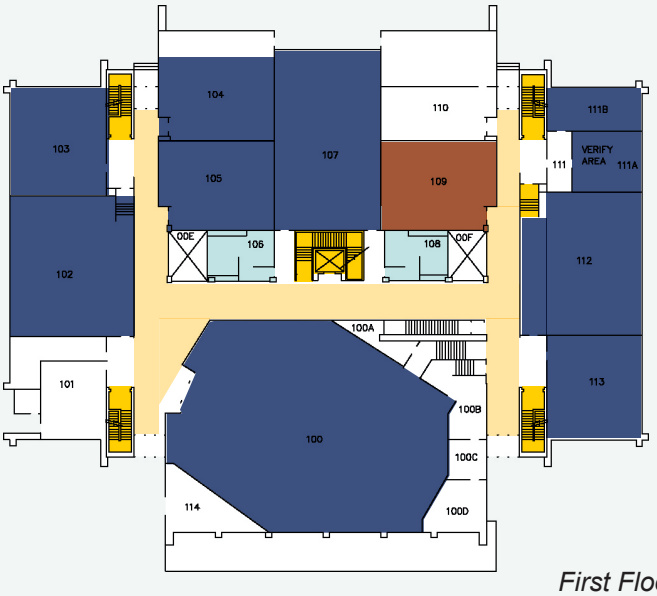


Hagg-Sauer Hall (cont.)

Third Floor



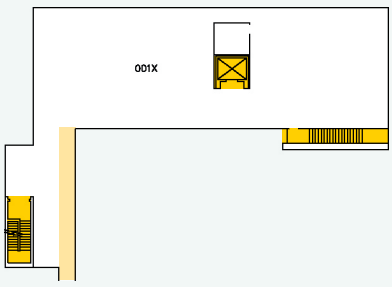
Second Floor



First Floor

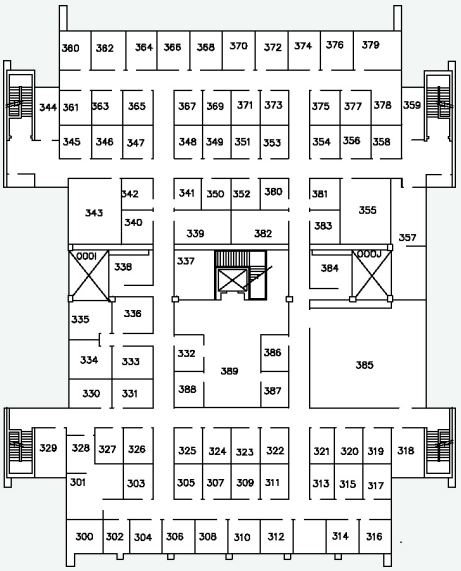
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

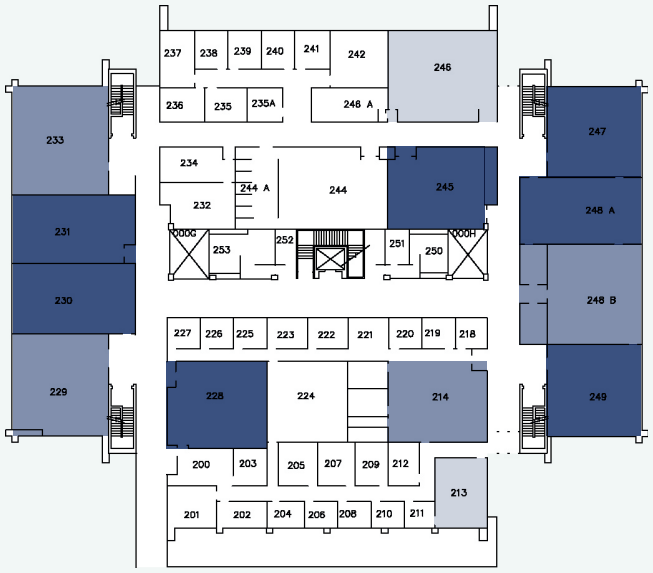


Basement Floor

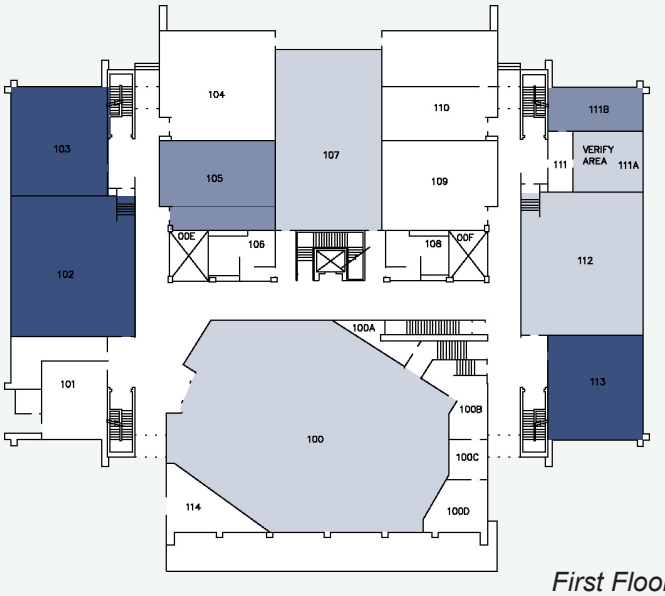
Hagg-Sauer Hall (cont.)



Third Floor

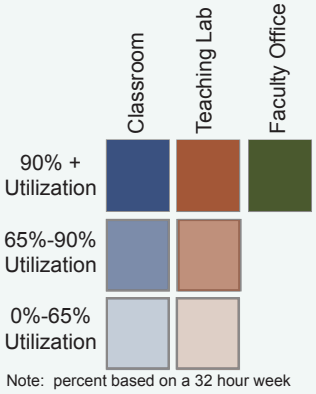


Second Floor

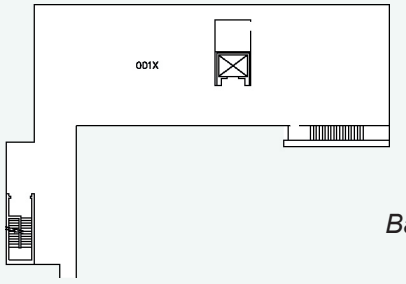


First Floor

Space Utilization



Note: percent based on a 32 hour week

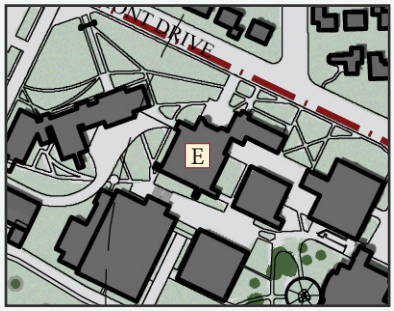


Basement Floor

Memorial Hall see Renovation Plans in Sec. 5

Fast Facts:

Letter on Key Plan	E.
Building Number	070S0540
Building Use	Academic
Year Built	1940
Building Size	53,893
Number of Floors	2 + basement
Current Replacement Value	$14,478,000
Backlog of Repairs Value	$2,508,000
Current Facility Condition Index (FCI)	0.17
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Exterior View

Entrance Vestibule

Main Lobby

Student Technology Center

Tunnel to Memorial Hall

Signage at end of Tunnel

Memorial Hall (cont.)

Space Utilization Summary:

- Seat Usage Percent: 16%
- Hours Usage Percent: 22%
- Building contains eLearning offices, Student Technology Center, campus mailroom, printing services, gymnasium

Condition Summary:

Structural System:

Technology Considerations:

- Basement technology offices and center is well equipped.
- Remainder of building should be brought to a similar level.

Current HEAPR Requests:

Additional Comments:

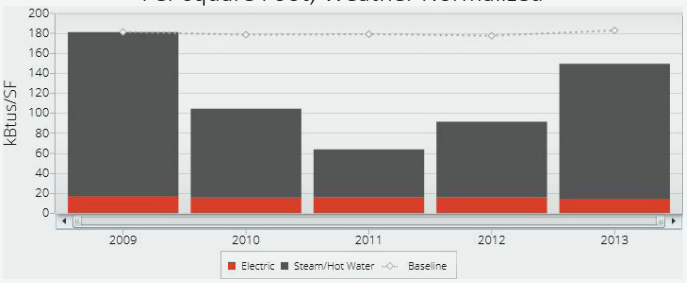
- Building is underutilized and is largely empty except for the basement.
- Building should be repurposed to make use of historical detailing.

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

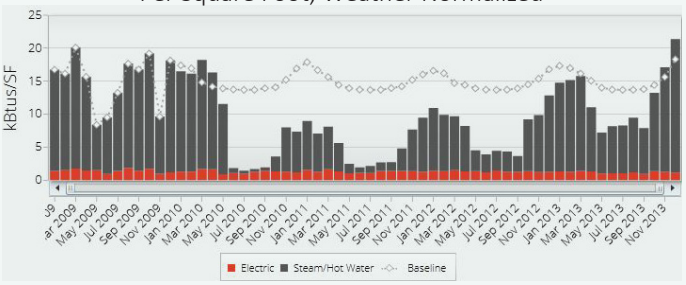
Annual EUI

Per square Foot, Weather Normalized

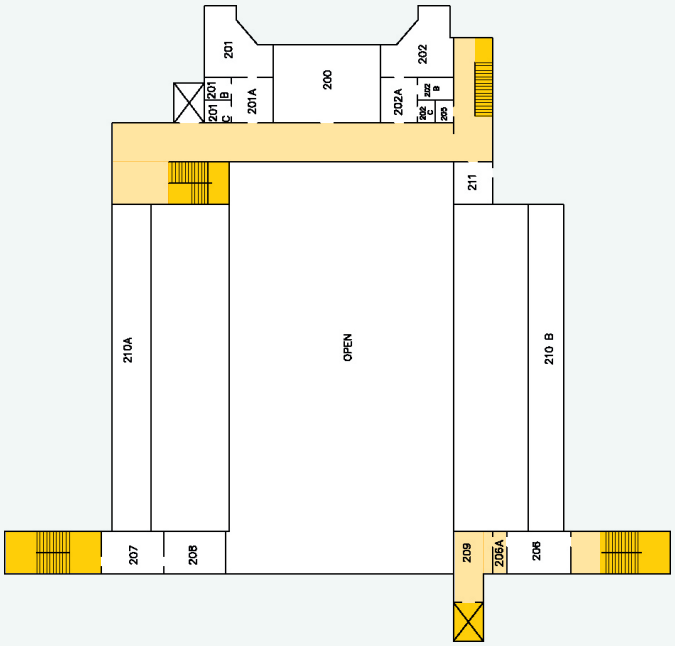


Monthly Continuous EUI

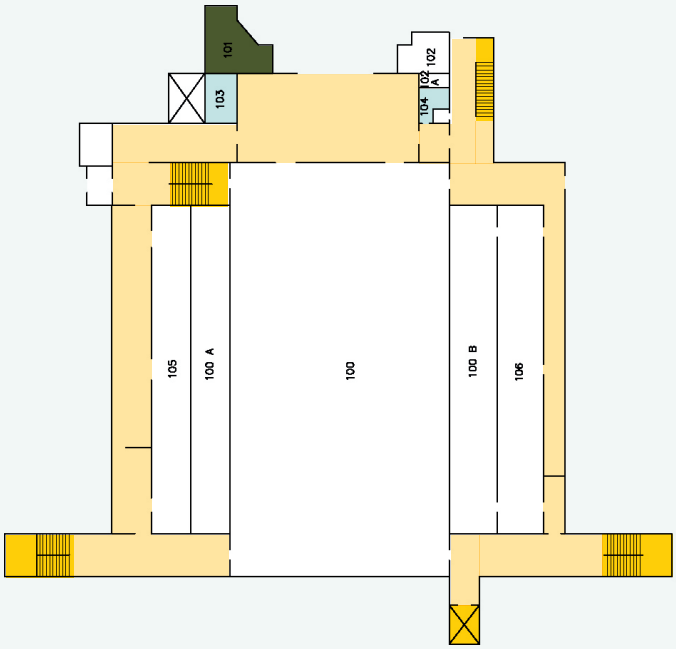
Per Square Foot, Weather Normalized



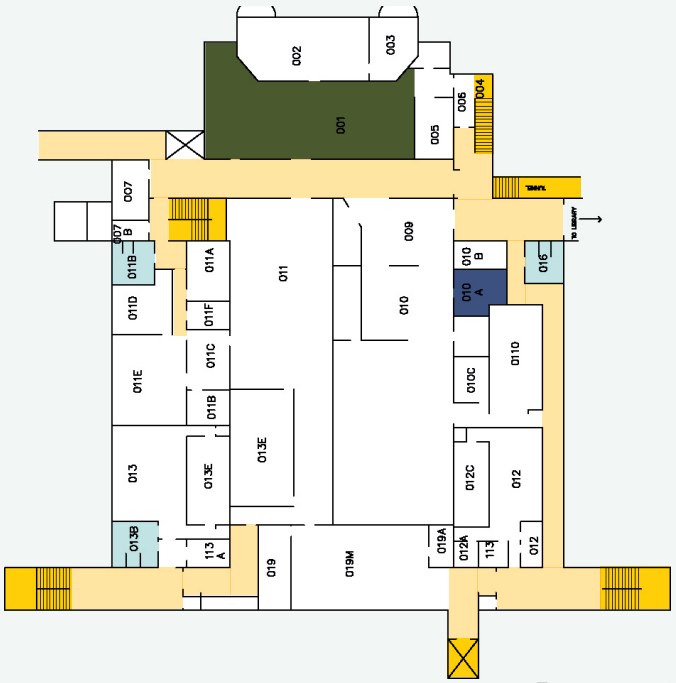
Memorial Hall (cont.)



Second Floor



First Floor

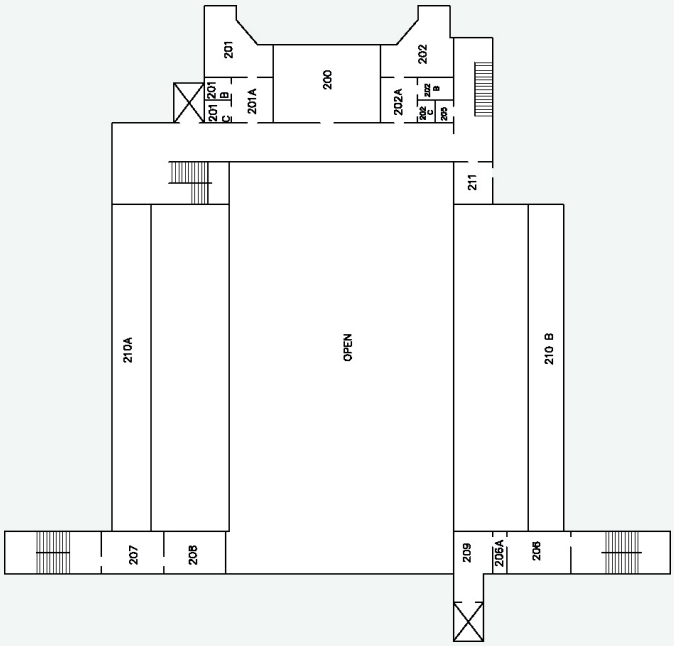


Basement

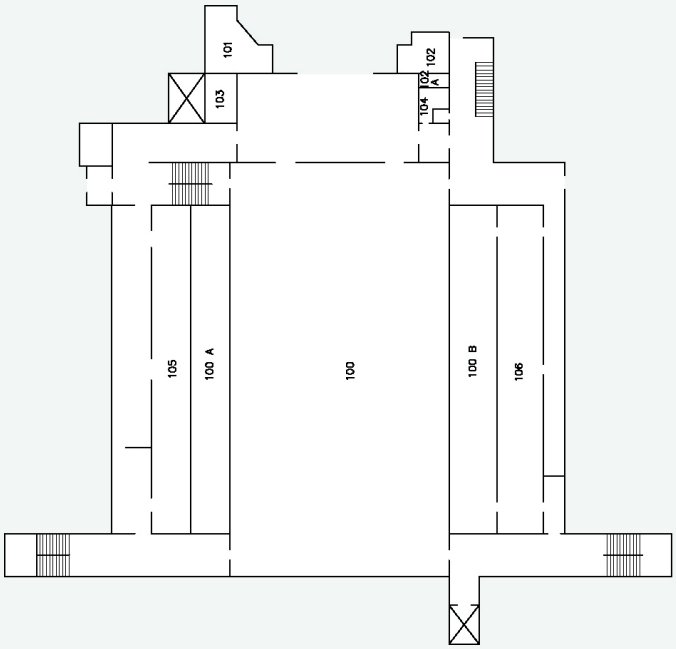
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

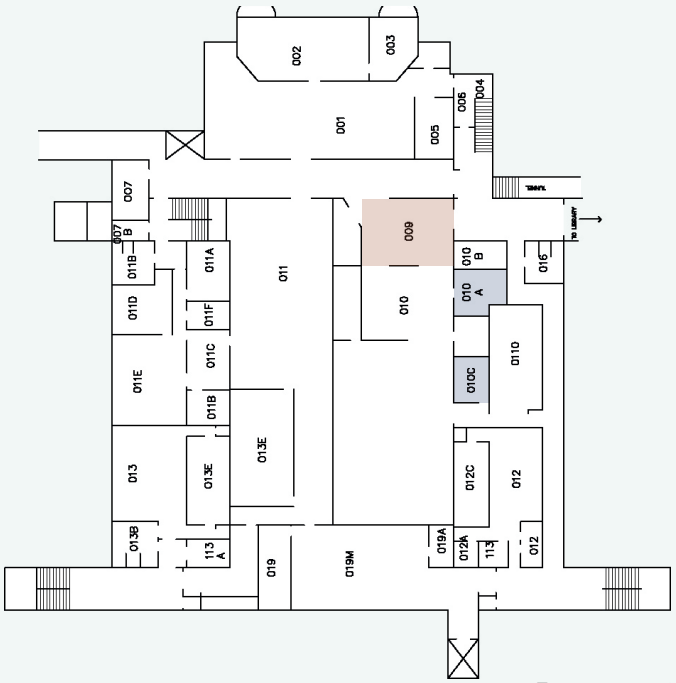
Memorial Hall (cont.)



Second Floor

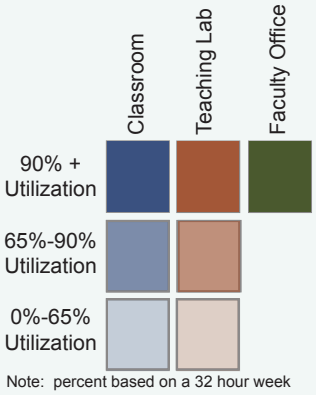


First Floor



Basement

Space Utilization

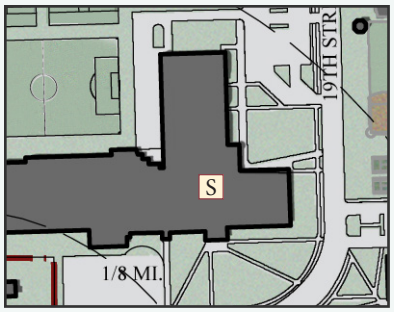


Note: percent based on a 32 hour week

Physical Education Complex (John S. Glas Field House)

Fast Facts:

Letter on Key Plan	S.
Building Number	070S0959
Building Use	Athletic
Year Built	1959, 1967
Building Size	121,586
Number of Floors	2
Current Replacement Value	$32,662,000
Backlog of Repairs Value	$7,064,000
Current Facility Condition Index (FCI)	0.22
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan


Exterior View


Main Corridor and Entry

Entrance to the Fieldhouse


Fieldhouse


Entry to Hockey Arena


Open Office for Coaches

Physical Education Complex (cont.)

Space Utilization Summary:

- Seat Usage Percent: 66%
- Hours Usage Percent: 78%
- Building contains the hockey arena, swimming pool, field house/basketball court, staff and coaching offices, locker rooms, equipment rooms, and support spaces.

Condition Summary:

Structural System:

- Large span metal joists, metal roof deck, concrete columns, concrete deck

Technology Considerations:

Current HEAPR Requests:

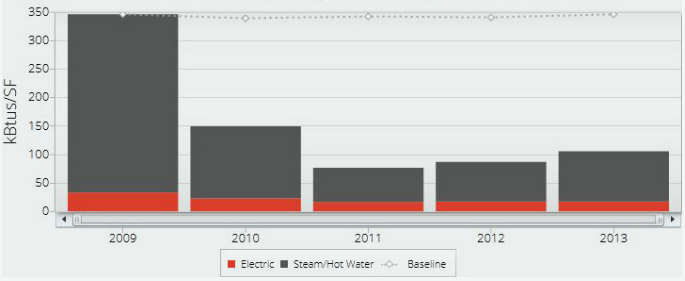
Additional Comments:

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

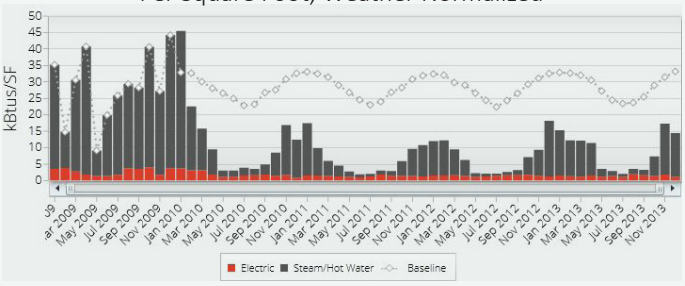
Annual EUI

Per square Foot, Weather Normalized

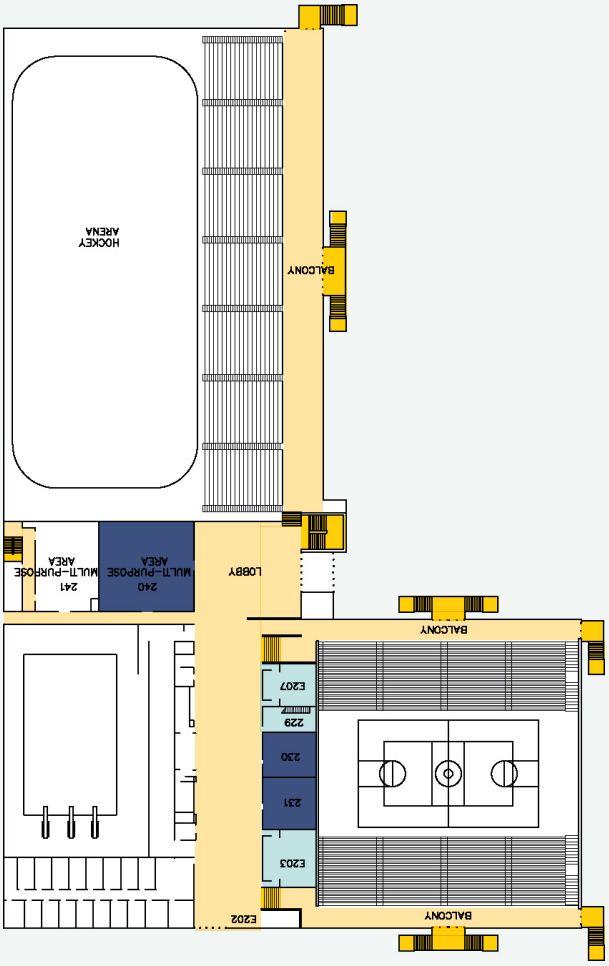


Monthly Continuous EUI

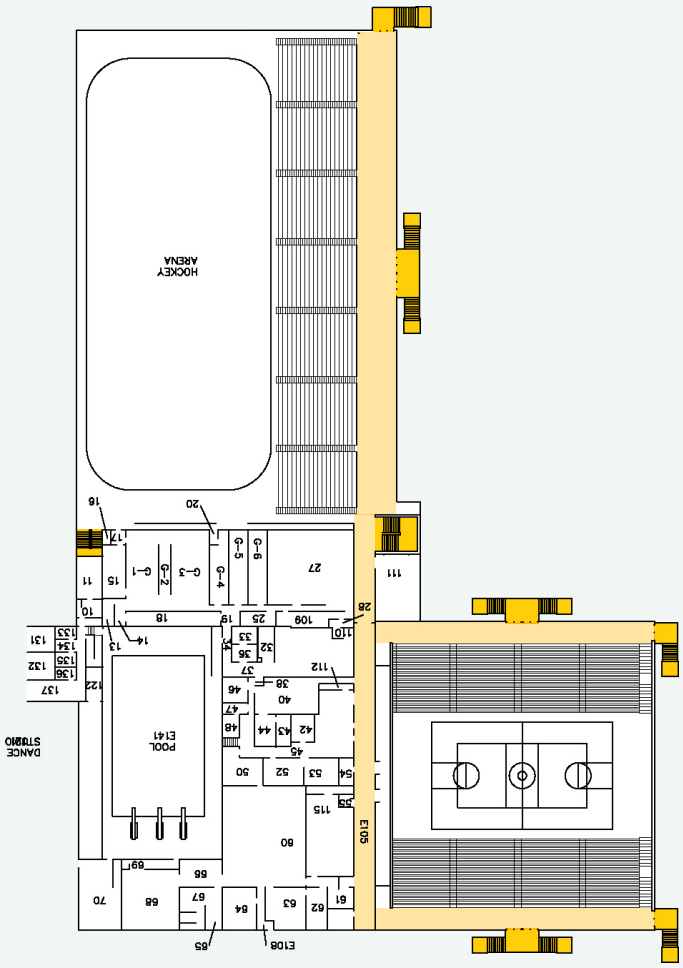
Per Square Foot, Weather Normalized



Physical Education Complex (cont.)



Second Floor

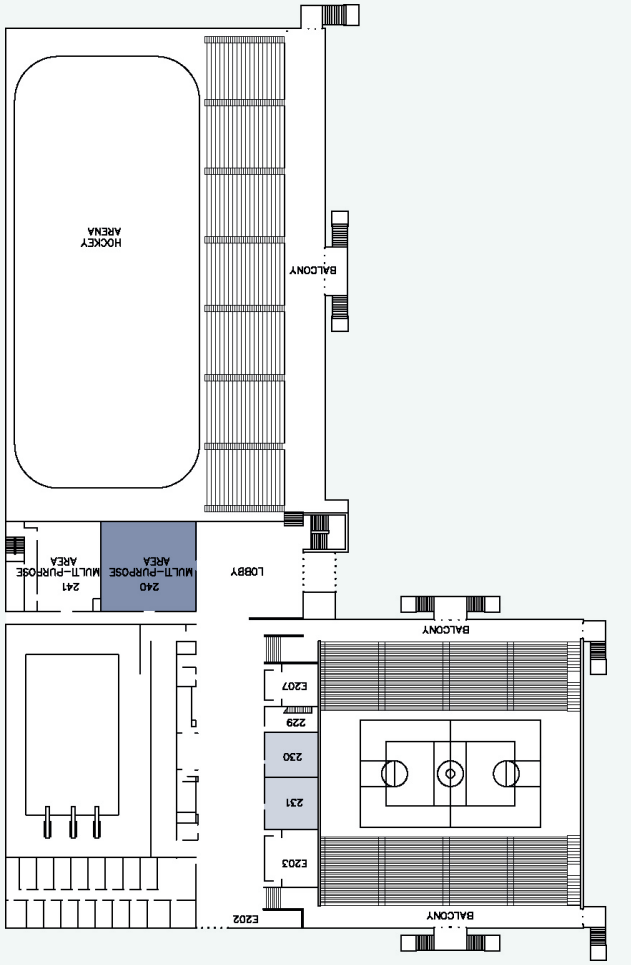


First Floor

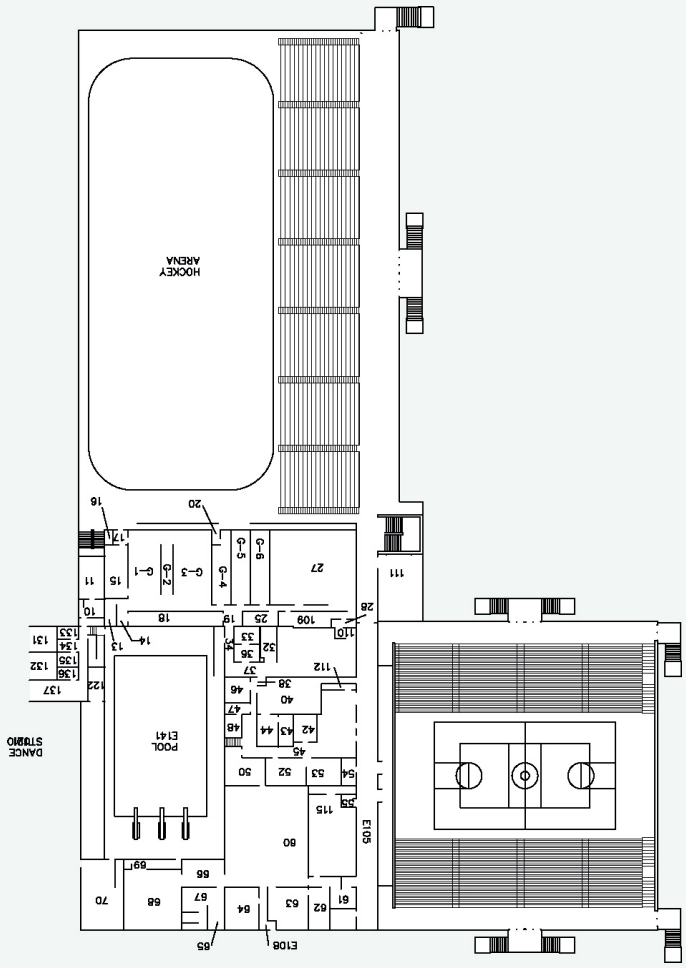
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

Physical Education Complex (cont.)

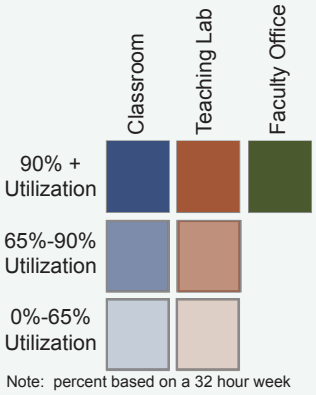


Second Floor



First Floor

Space Utilization

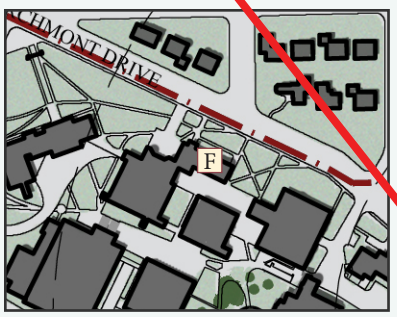


Note: percent based on a 32 hour week

Sanford Hall Demolished (2014)

Fast Facts:

Letter on Key Plan	F.
Building Number	070S0220
Building Use	Academic, Student Support
Year Built	1920, 1979, 1980
Building Size	17,012
Number of Floors	2 + basement
Current Replacement Value	$4,570,000
Backlog of Repairs Value	$1,155,000
Current Facility Condition Index (FCI)	0.25
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

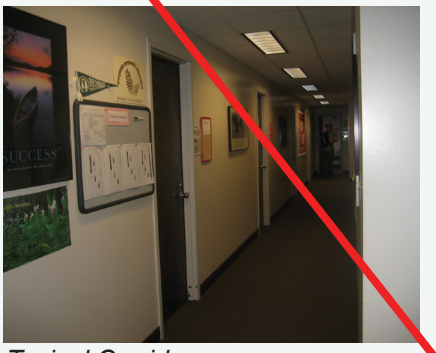
Exterior View

Seating Area near Reception Desk

Advising Success Center

Veterans Assistance Center

Lounge Area



Typical Corridor

Sanford Hall (cont.)

Space Utilization Summary:

- Seat Usage Percent: 35%
- Hours Usage Percent: 30%
- Building contains student services such as TRIO, Veterans Assistance Services, Advising Success Center, Career Services, and Disability Services

Condition Summary:

Structural System:

- Concrete structure

Technology Considerations:

Current HEAPR Requests:

Additional Comments:

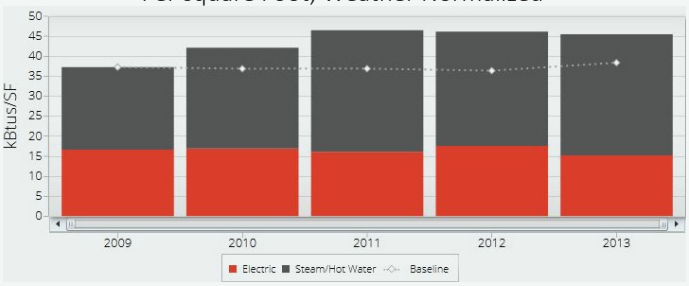
- The building has two primary entrances without a clear wayfinding system.

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

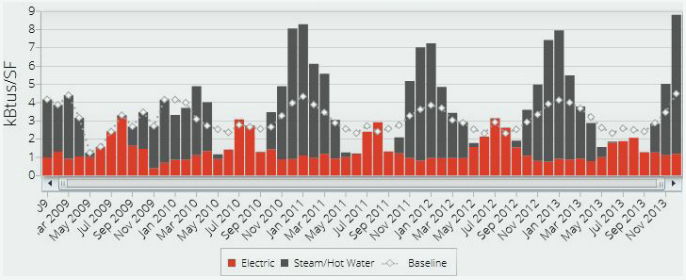
Annual EUI

Per square Foot, Weather Normalized

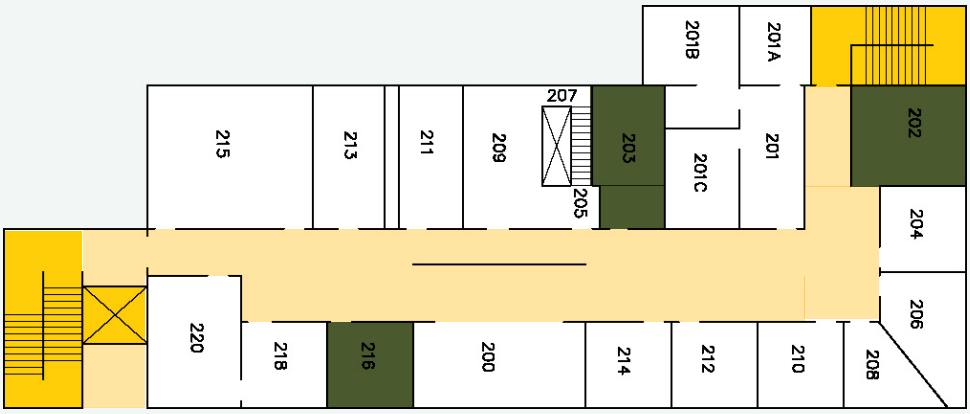


Monthly Continuous EUI

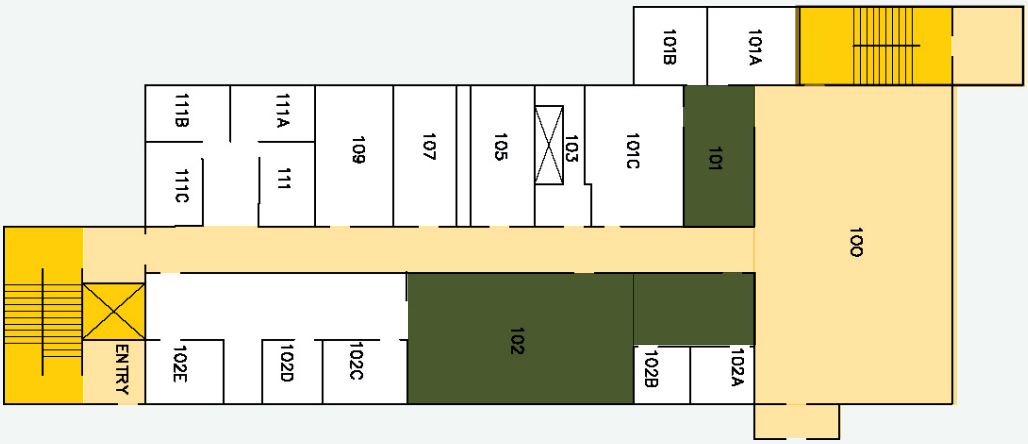
Per Square Foot, Weather Normalized



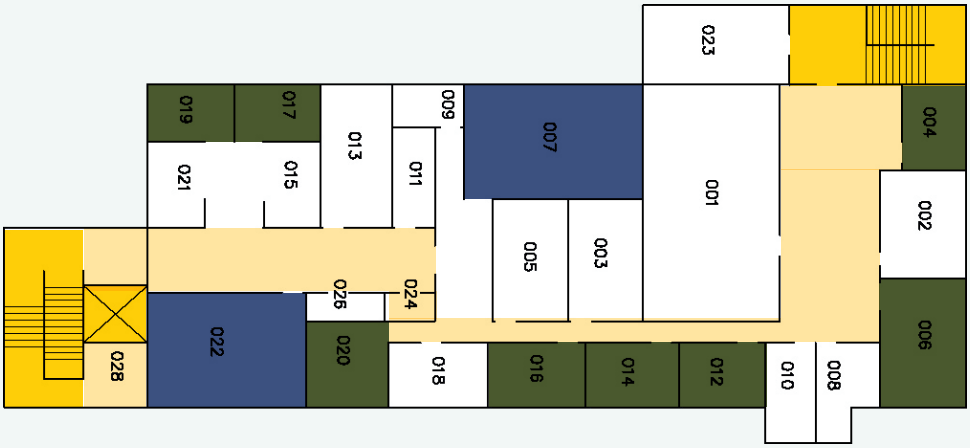
Sanford Hall (cont.)



Second Floor



First Floor

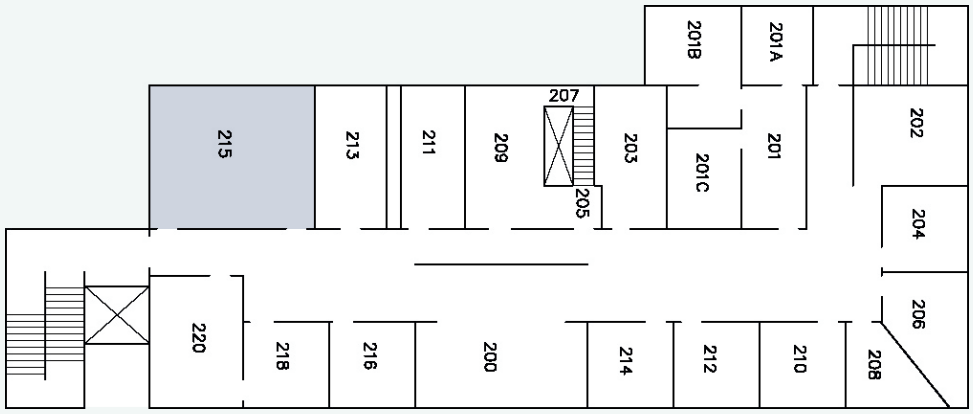


Basement

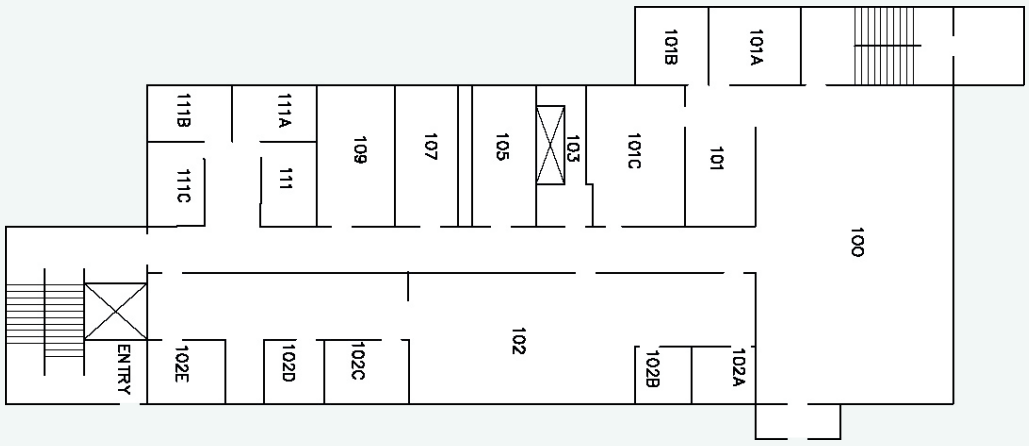
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

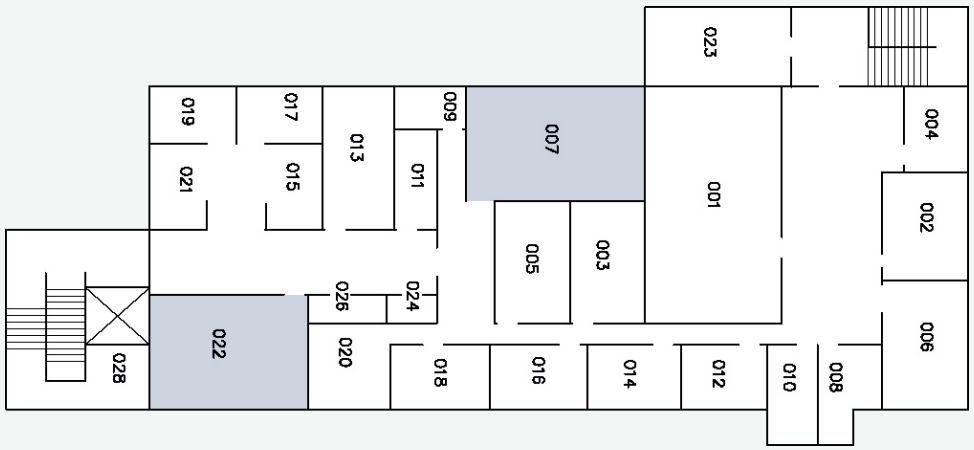
Sanford Hall (cont.)



Second Floor

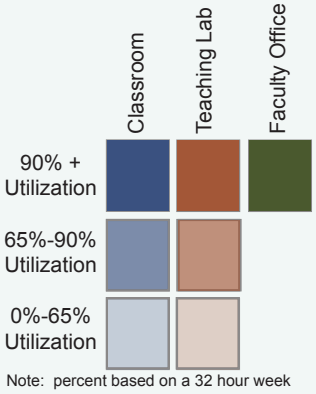


First Floor



Basement

Space Utilization

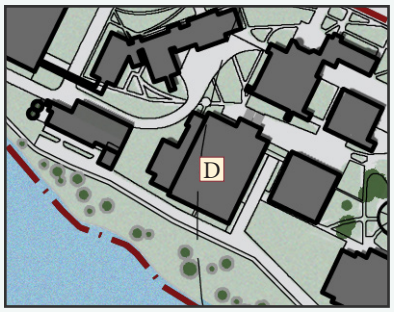


Note: percent based on a 32 hour week

Sattgast Hall

Fast Facts:

Letter on Key Plan	D.
Building Number	070S1162
Building Use	Academic
Year Built	1962, 1989
Building Size	107,598
Number of Floors	3 + penthouse
Current Replacement Value	$40,332,000
Backlog of Repairs Value	$2,101,000
Current Facility Condition Index (FCI)	0.05
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Exterior View

Main Entrance Lobby

Lab Space

Typical Corridor

Outdated Electronics Lab

Seating Area with Lakeside View

Sattgast Hall (cont.)

Space Utilization Summary:

- Seat Usage Percent: 35%
- Hours Usage Percent: 53%
- Building contains general classrooms, science labs, faculty offices, department offices for numerous programs, centers, and Colleges.

Condition Summary:

- Portions of the building were remodeled with the recent addition
- Unremodeled areas appear dated and are in need of finish upgrades. Glazed masonry units are prevalent.

Structural System:

- Concrete structure, including roof and floors.

Technology Considerations:

Current HEAPR Requests:

Additional Comments:

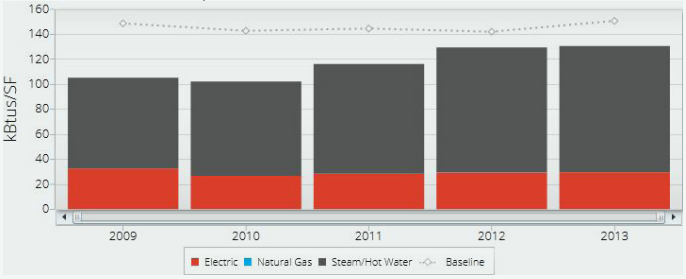
- Main building entry is on the third floor. Poor building signage makes wayfinding difficult.

Energy Use Intensity (EUI) & B3 Benchmarking

Benchmark

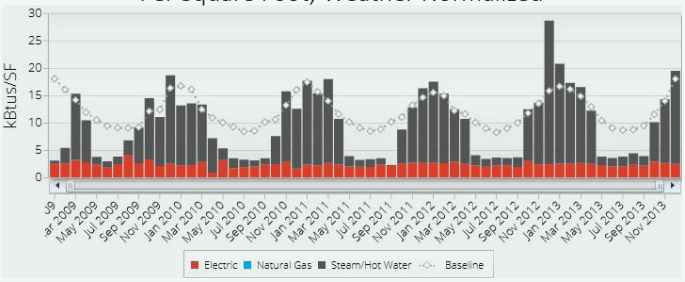
Annual EUI

Per square Foot, Weather Normalized

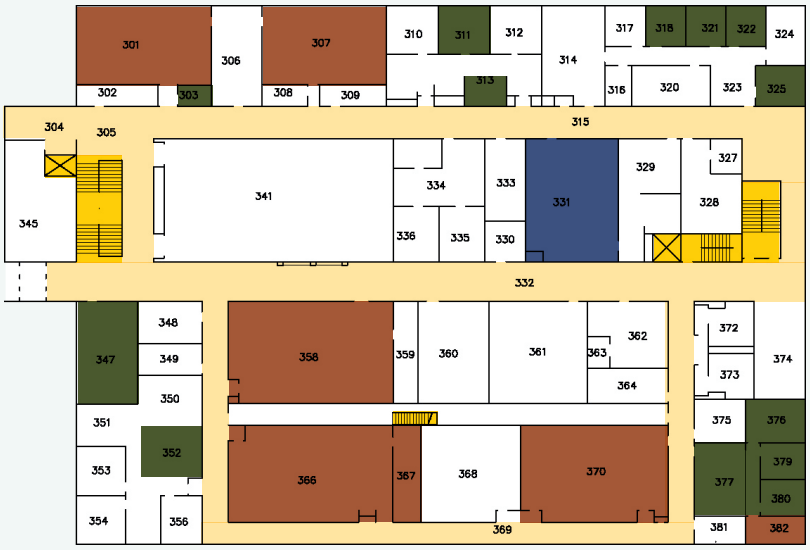


Monthly Continuous EUI

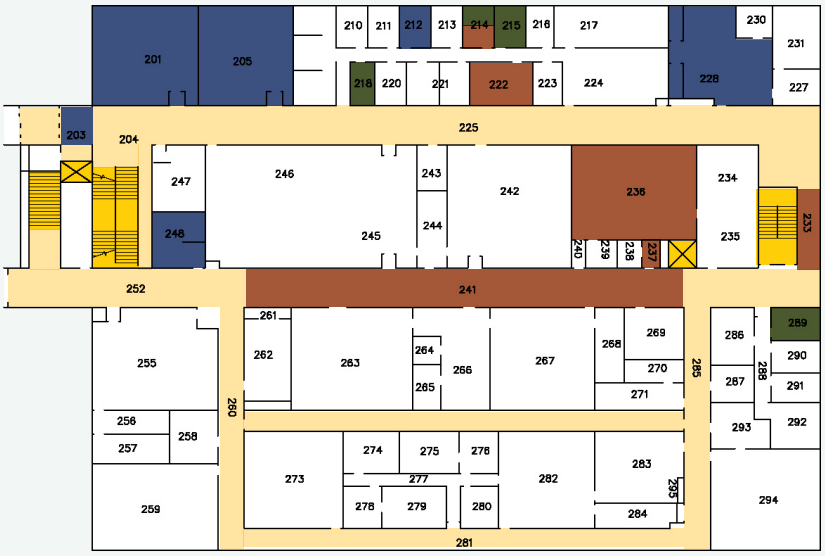
Per Square Foot, Weather Normalized



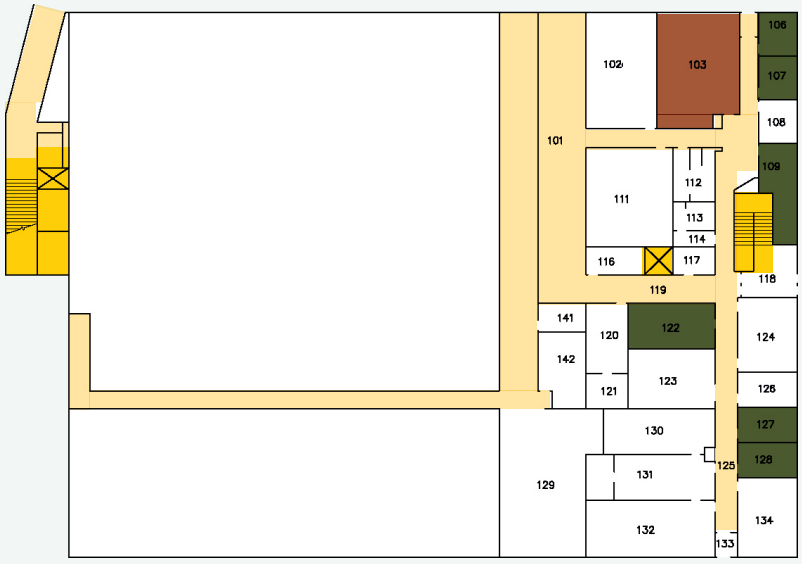
Sattgast Hall (cont.)



Third Floor



Second Floor

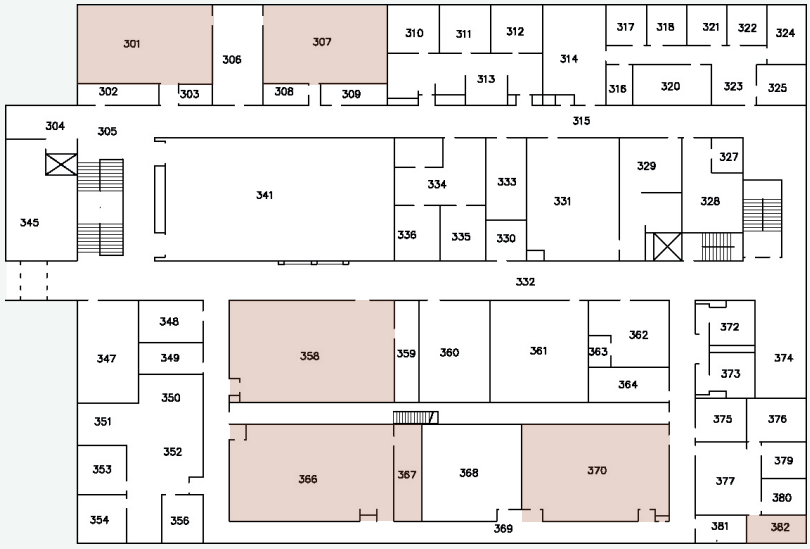


First Floor

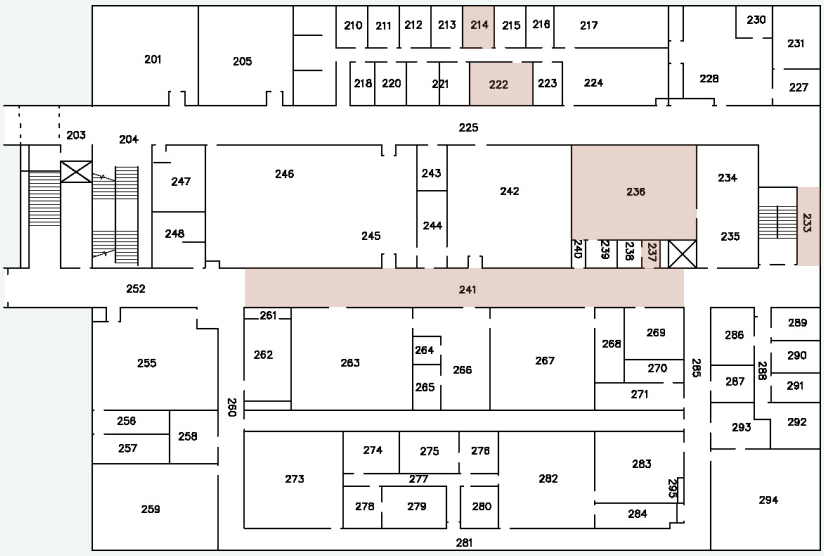
Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

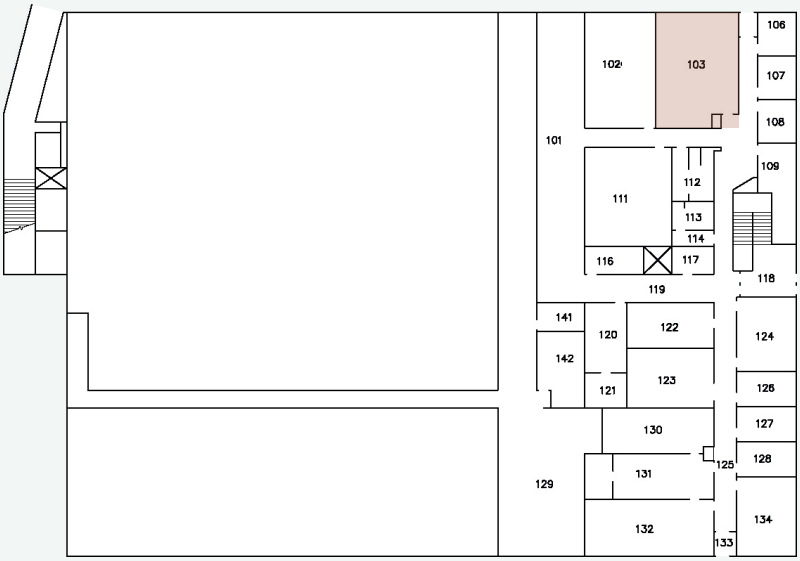
Sattgast Hall (cont.)



Third Floor

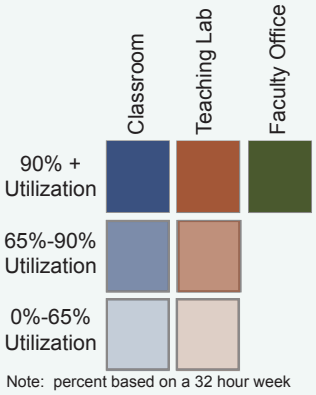


Second Floor



First Floor

Space Utilization

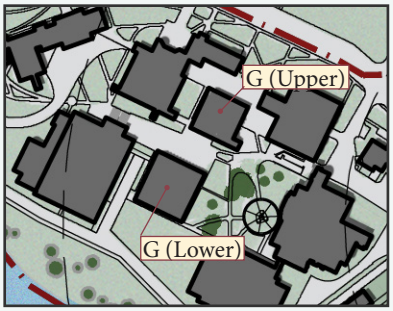


Note: percent based on a 32 hour week

Hobson Memorial Union

Fast Facts:

Letter on Key Plan	G.
Building Number	070S8067
Building Use	Student Services
Year Built	1966, 1999
Building Size	76,756
Number of Floors	4
Current Replacement Value	$17,263,000
Backlog of Repairs Value	$572,000
Current Facility Condition Index (FCI)	0.03
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Exterior View (Upper)

Exterior View (Lower)

Beaux Arts Ballroom

Dining Area

Lounge Space

Bookstore

Hobson Memorial Union (cont.)

Space Utilization Summary:

- Seat Usage Percentage and Hours Usage Percentage not applicable.
- Building contains student amenities and services such as campus bookstore, food service, study areas, meeting rooms, student organizations, and a convenience store.

Condition Summary:

Structural System:

- Concrete structure

Technology Considerations:

Current HEAPR Requests:

Additional Comments:

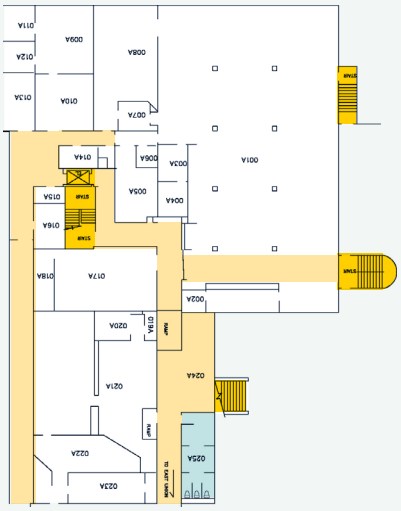
- Upper Hobson is not well utilized and Lower Hobson was observed to be heavily used for studying and informal gatherings.
- Connection between the two buildings is confusing.

Space Use

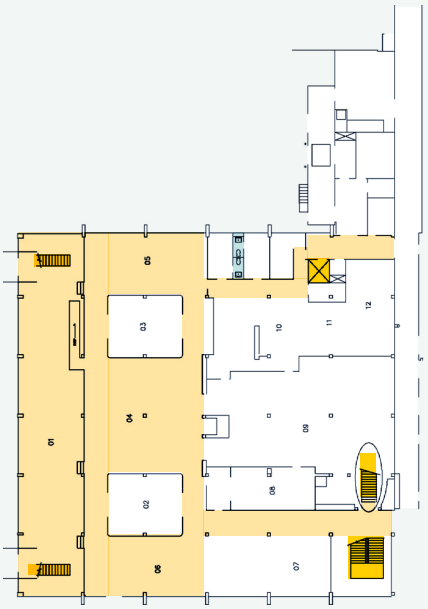
Circulation

Vertical Circulation

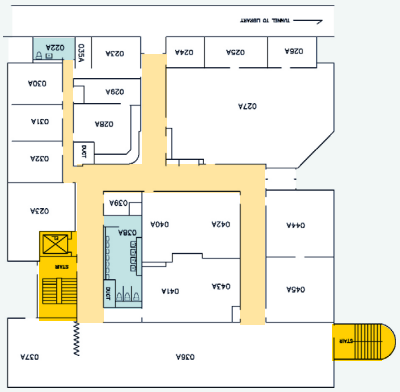
Bathrooms



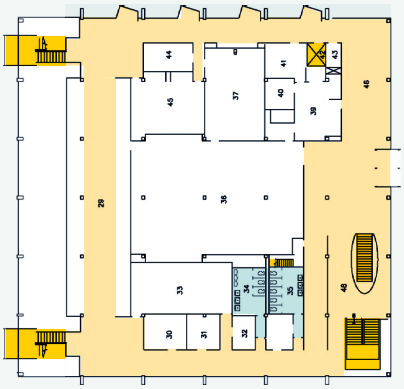
Upper Hobson - Basement
(Connects to First Floor of Lower Hobson)



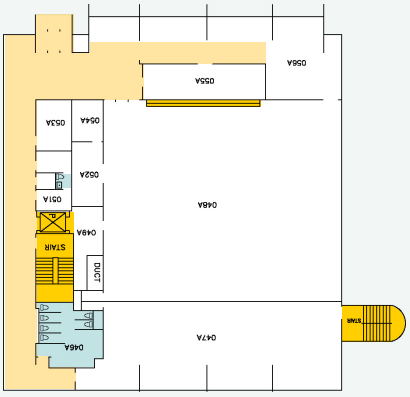
Lower Hobson - First Floor



Upper Hobson - First Floor

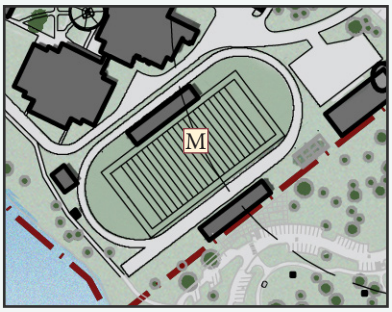


Lower Hobson - Second Floor



Upper Hobson - Second Floor

Chet Anderson Stadium



Keyplan

Fast Facts:

Letter on Key Plan	M.
Building Number	
Building Use	Athletic
Year Built	
Building Size	
Number of Floors	
Current Replacement Value	
Backlog of Repairs Value	
Current Facility Condition Index (FCI)	
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Space Utilization Summary:

- Seat Usage Percent: %
- Hours Usage Percent: %
- Building contains

Condition Summary:

Structural System:

Technology Considerations:

Exterior View

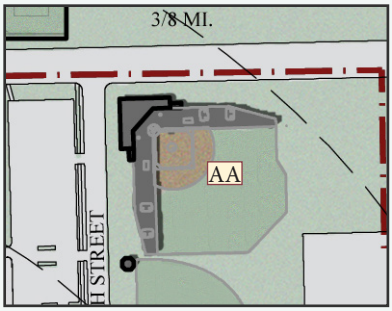
Current HEAPR Requests:

Additional Comments:

Baseball Stadium

Fast Facts:

Letter on Key Plan	AA.
Building Number	
Building Use	Athletic
Year Built	
Building Size	
Number of Floors	
Current Replacement Value	
Backlog of Repairs Value	
Current Facility Condition Index (FCI)	
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Space Utilization Summary:

- Seat Usage Percent: %
- Hours Usage Percent: %
- Building contains

Condition Summary:

Structural System:

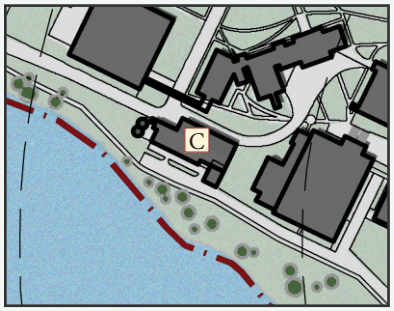
Technology Considerations:

Current HEAPR Requests:

Additional Comments:


Exterior View

Heating Plant



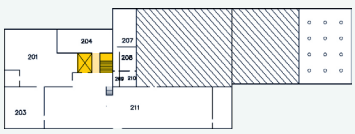
Keyplan

Fast Facts:

Letter on Key Plan	C.
Building Number	070S0325
Building Use	Service
Year Built	1919, 1929, 1949, 1979, 1981
Building Size	20,317
Number of Floors	2
Current Replacement Value	$5,720,000
Backlog of Repairs Value	$902,000
Current Facility Condition Index (FCI)	0.16
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Space Use

First Floor



Second Floor

Space Utilization Summary:

- Seat Usage Percentage and Hours Usage Percentage not applicable.

Condition Summary:

Structural System:

Technology Considerations:

Exterior View

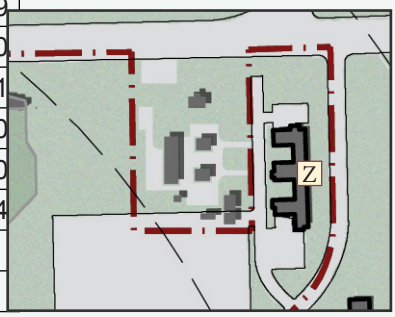
Current HEAPR Requests:

Additional Comments:

Maintenance - Receiving

Fast Facts:

Letter on Key Plan	Z.
Building Number	070S1878
Building Use	Service
Year Built	1979
Building Size	14,320
Number of Floors	1
Current Replacement Value	$3,847,000
Backlog of Repairs Value	$148,000
Current Facility Condition Index (FCI)	0.04
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Space Use

Circulation

Vertical Circulation

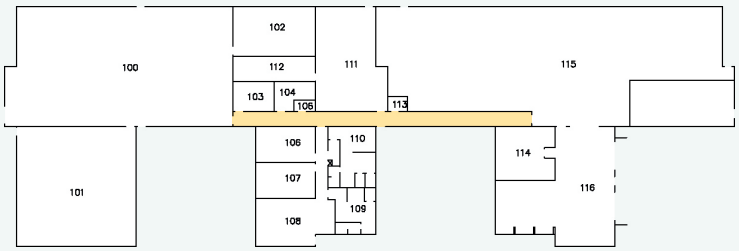
Bathrooms

Space Utilization Summary:

- Seat Usage Percentage and Hours Usage Percentage not applicable.

Condition Summary:

Structural System:



First Floor

Technology Considerations:

Current HEAPR Requests:

Additional Comments:

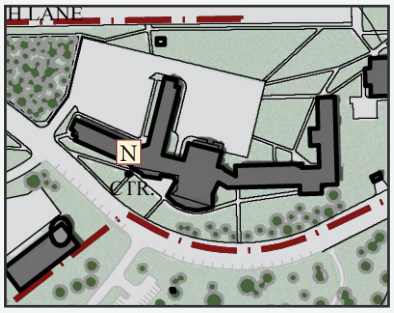
Exterior View

Birch Hall (A, B)

Fast Facts:

Letter on Key Plan	N.
Building Number	070S5052, 0705053
Building Use	Residential Life
Year Built	1952
Building Size	31,092; 31,092
Number of Floors	3 + basement
Current Replacement Value	$6,993,000; $6,993,000
Backlog of Repairs Value	$0; $0
Current Facility Condition Index (FCI)	0.00; 0.00
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Note: Refer to the Student Housing Master Plan for additional Information



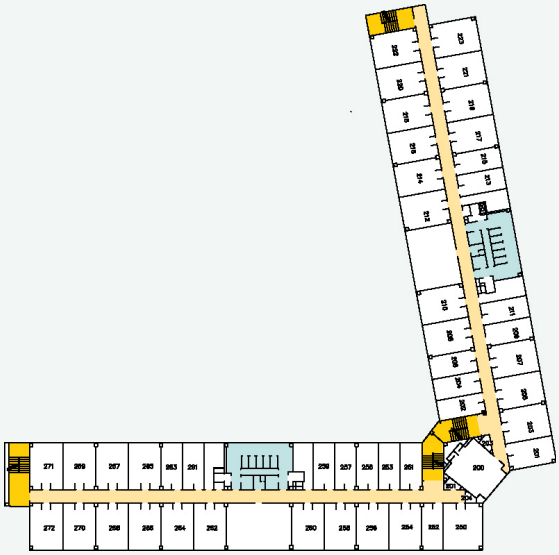
Keyplan

Space Use

Circulation

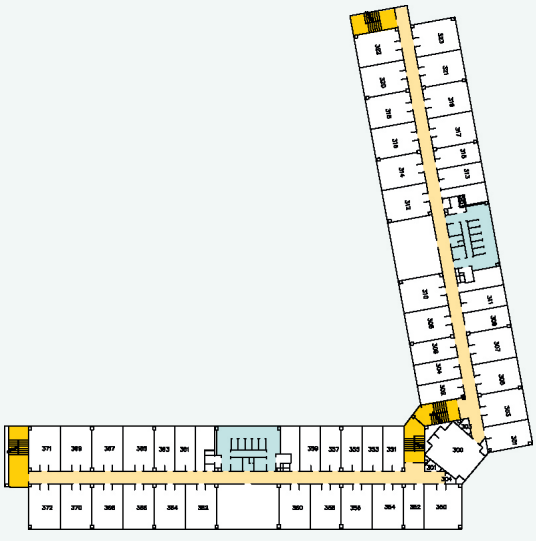
Vertical Circulation

Bathrooms

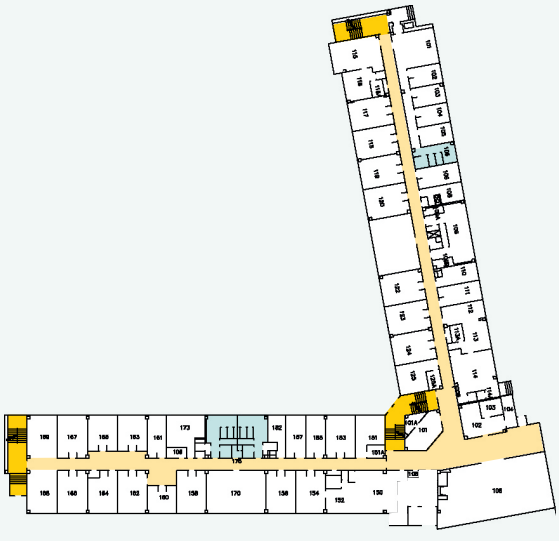


Second Floor

Fourth Floor



Third Floor



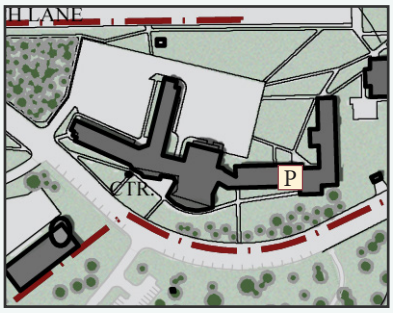
First Floor

Linden Hall (A, B)

Fast Facts:

Letter on Key Plan	P.
Building Number	070S5159, 0705160
Building Use	Residential Life
Year Built	1959, 1964
Building Size	28,957; 38,609
Number of Floors	4 + basement
Current Replacement Value	$6,513,000; $8,683,000
Backlog of Repairs Value	$0; $0
Current Facility Condition Index (FCI)	0.00; 0.00
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Note: Refer to the Student Housing Master Plan for additional Information



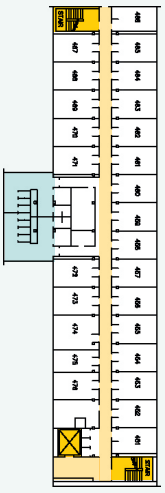
Keyplan

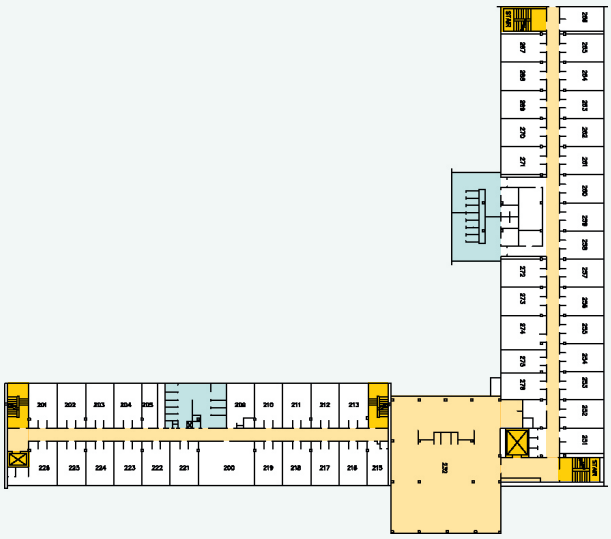
Space Use

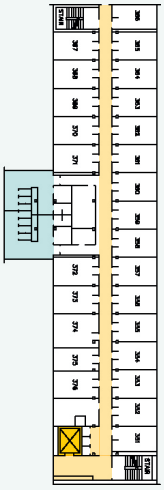
Circulation

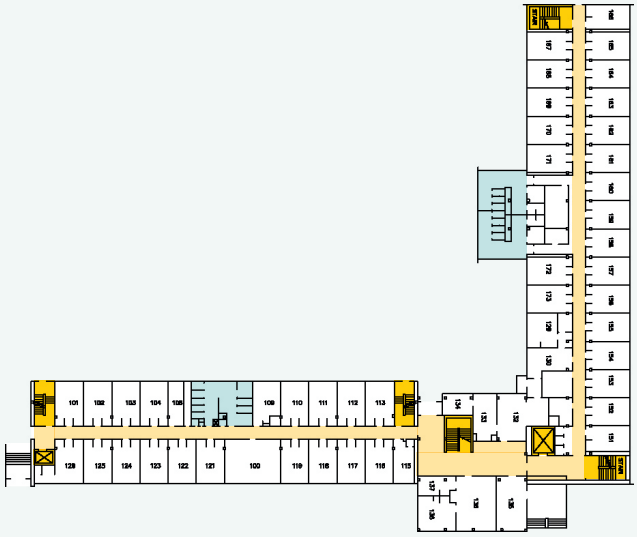
Vertical Circulation

Bathrooms

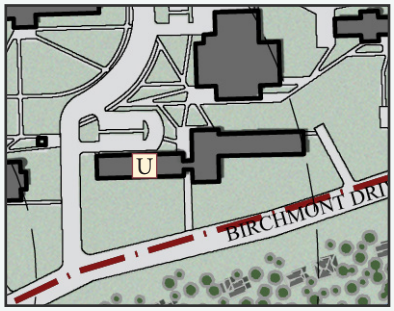

Fourth Floor


Second Floor


Third Floor


First Floor

Cedar Hall



Keyplan

Fast Facts:

Letter on Key Plan	U.
Building Number	070S5259
Building Use	Residential Life
Year Built	1959, 1991
Building Size	39,133
Number of Floors	4 + basement
Current Replacement Value	$8,801,000
Backlog of Repairs Value	$100,000
Current Facility Condition Index (FCI)	0.01
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

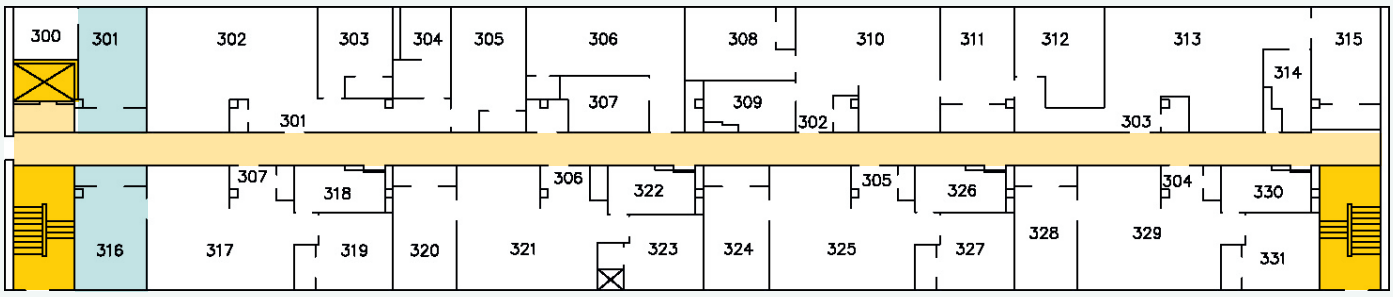
Note: Refer to the Student Housing Master Plan for additional Information

Space Use

Circulation

Vertical Circulation

Bathrooms

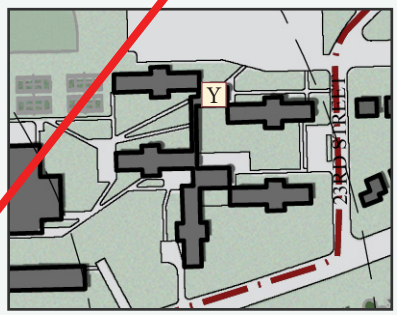


Maple Hall (A, B) Demolished (2014)

Fast Facts:

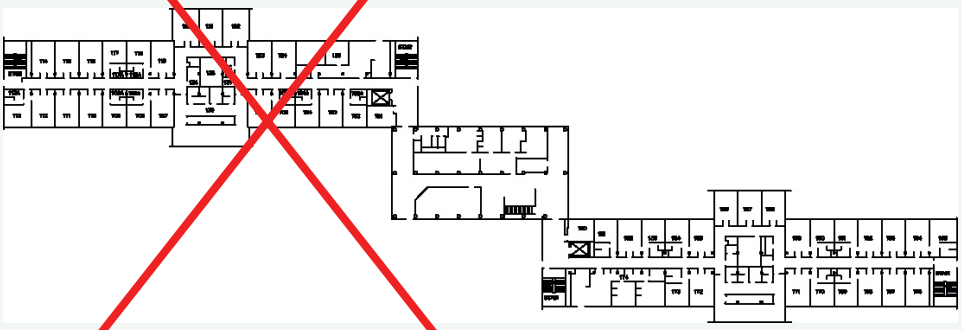
Letter on Key Plan	Y.
Building Number	070S5567, 0705168
Building Use	Residential Life
Year Built	1967, 1968
Building Size	47,318; 47,317
Number of Floors	4 + basement
Current Replacement Value	$10,642,000; $10,642,000
Backlog of Repairs Value	$1,670,000; $1,670,000
Current Facility Condition Index (FCI)	0.16; 0.16
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Note: Refer to the Student Housing Master Plan for additional Information

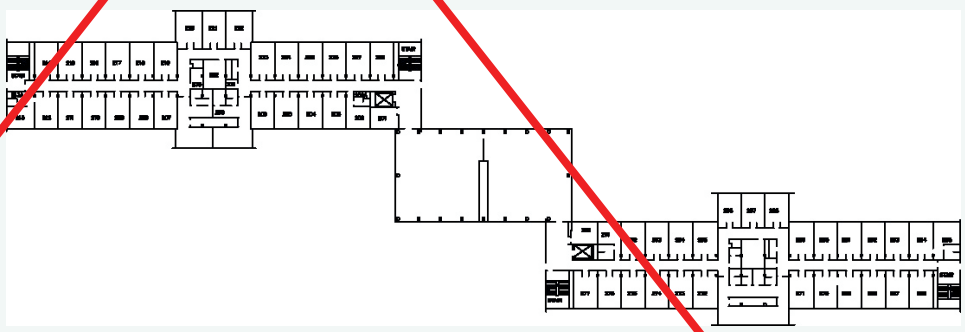


Keyplan

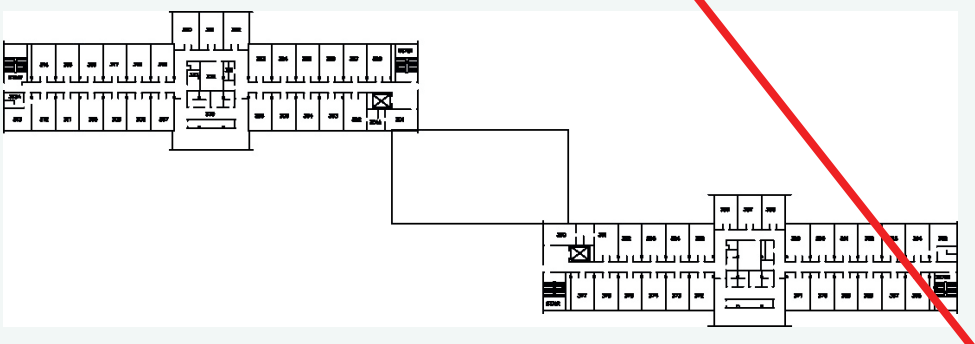
First Floor



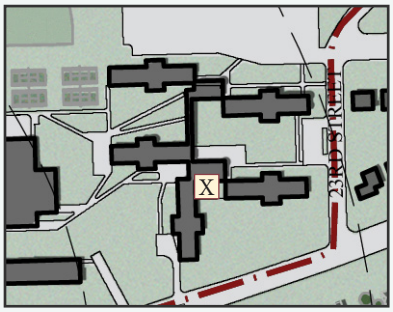
Second Floor



Third Floor



Oak Hall (A, B, C)



Keyplan

Fast Facts:

Letter on Key Plan	X.
Building Number	070S5466; 070S5467; 070S5468
Building Use	Residential Life
Year Built	1965, 1966
Building Size	42,850; 42,850; 42,850;
Number of Floors	4 + basement
Current Replacement Value	$9,637,000; $9,637,000; $9,637,000
Backlog of Repairs Value	$1,288,000; $1,288,000; $1,288,000
Current Facility Condition Index (FCI)	0.13; 0.13; 0.13
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

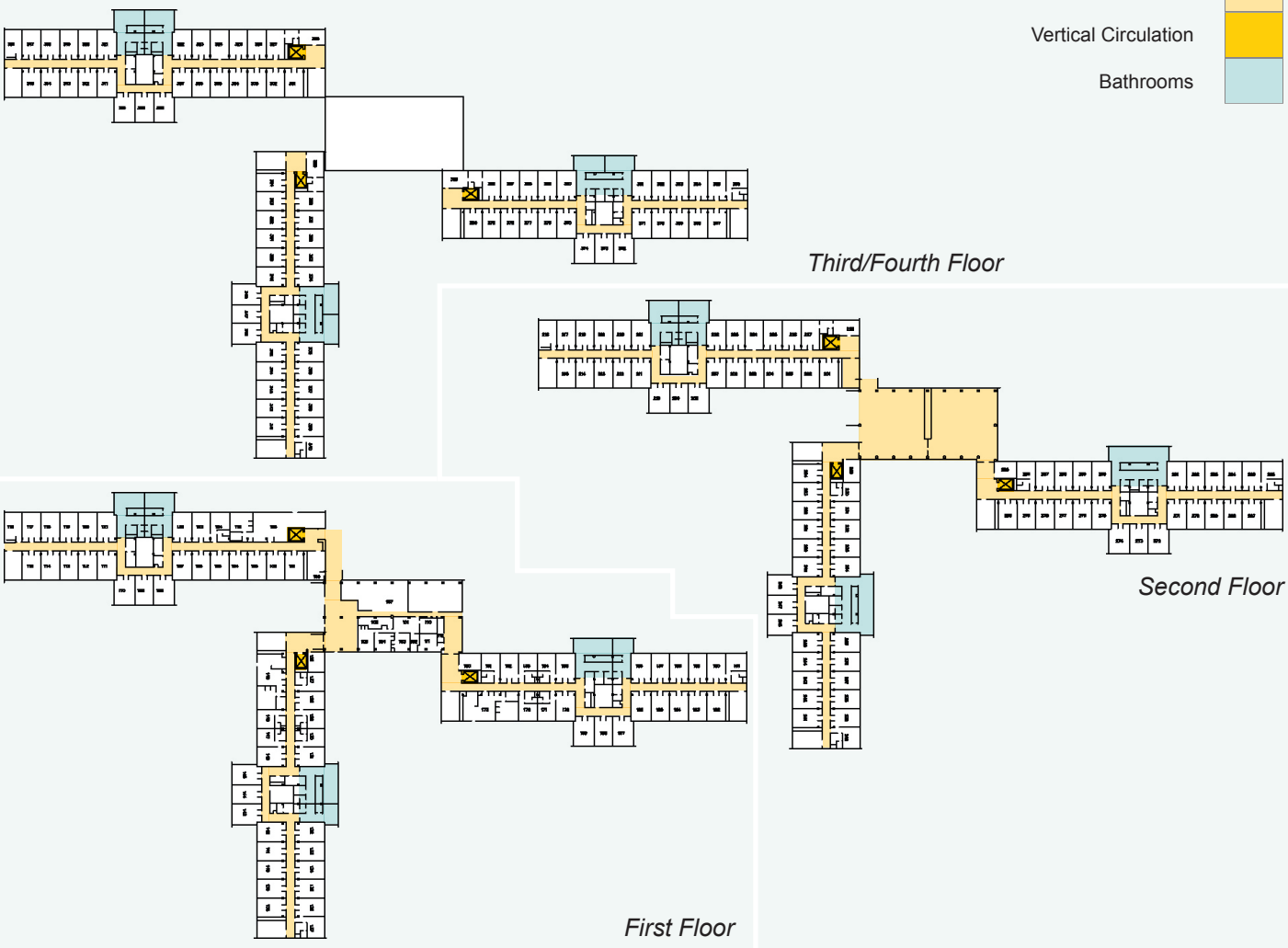
Note: Refer to the Student Housing Master Plan for additional information

Space Use

Circulation

Vertical Circulation

Bathrooms



Third/Fourth Floor

Second Floor

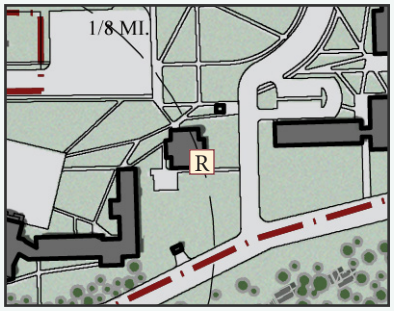
First Floor

TAMARACK HALL

Fast Facts:

Letter on Key Plan	R.
Building Number	070S5769
Building Use	Residential Life
Year Built	1969
Building Size	88,410
Number of Floors	12 + basement
Current Replacement Value	$24,666,000
Backlog of Repairs Value	$1,763,000
Current Facility Condition Index (FCI)	0.07
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Note: Refer to the Student Housing Master Plan for additional information



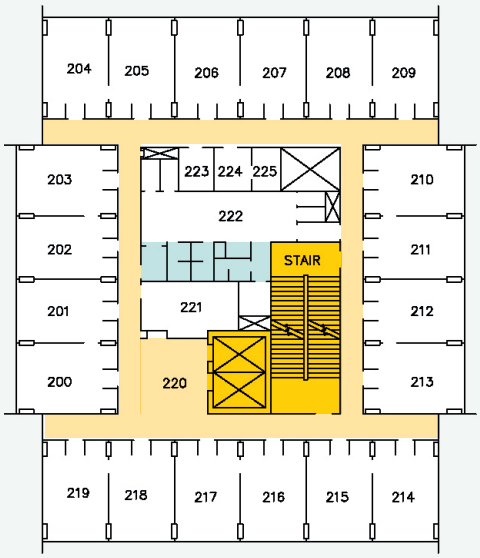
Keyplan

Space Use

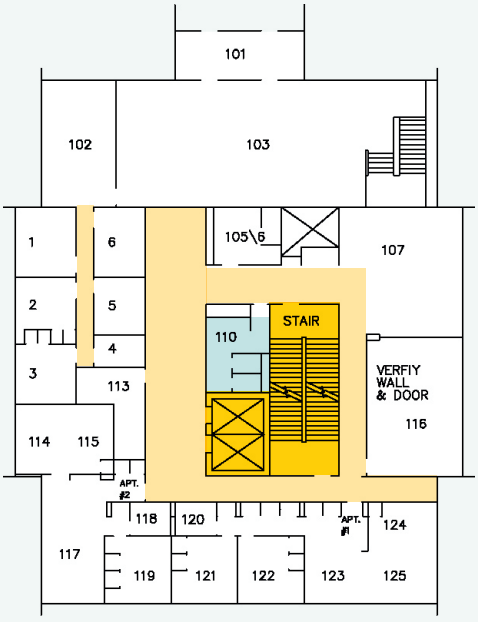
Circulation

Vertical Circulation

Bathrooms

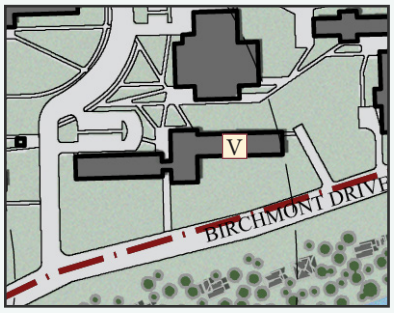


Second Floor



First Floor

Pine Hall



Keyplan

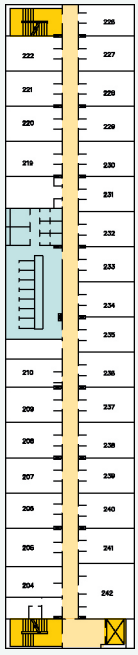
Fast Facts:

Letter on Key Plan	V.
Building Number	070S5361
Building Use	Residential Life
Year Built	1961
Building Size	50,264
Number of Floors	4 + basement
Current Replacement Value	$11,305,000
Backlog of Repairs Value	$1,093,000
Current Facility Condition Index (FCI)	0.10
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

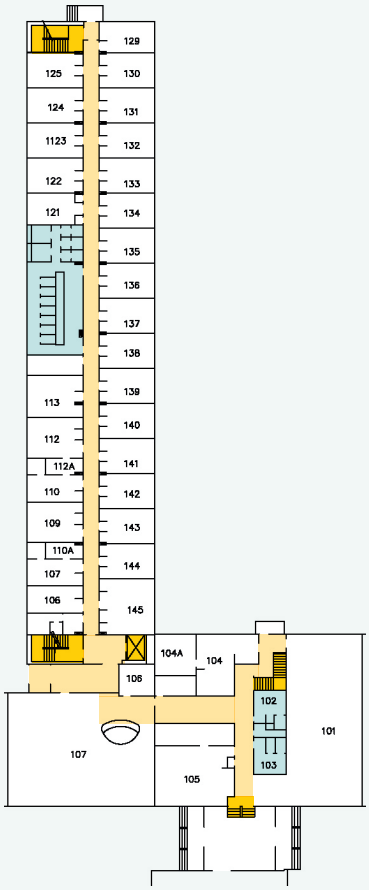
Note: Refer to the Student Housing Master Plan for additional information

Space Use

Circulation
Vertical Circulation
Bathrooms



Second Floor



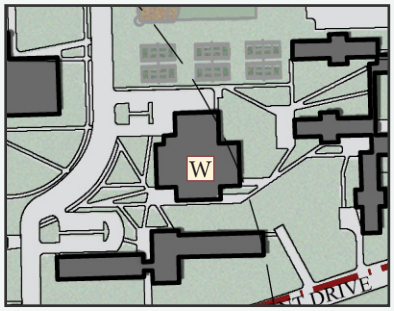
First Floor

Walnut Food Service

Fast Facts:

Letter on Key Plan	W.
Building Number	070S5669
Building Use	Residential Life / Food Service
Year Built	1969, 1991
Building Size	57,167
Number of Floors	1 + basement
Current Replacement Value	$12,857,000
Backlog of Repairs Value	$0
Current Facility Condition Index (FCI)	0.00
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Note: Refer to the Student Housing Master Plan for additional information



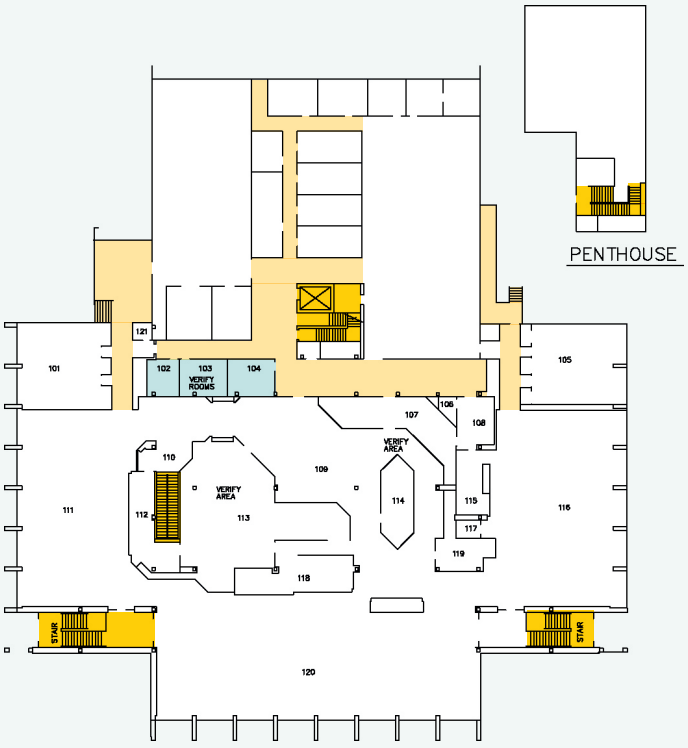
Keyplan

Space Use

Circulation

Vertical Circulation

Bathrooms



First Floor

Basement

Section 3B: Existing Building Conditions

Summary of Issues

Building Entries

Northwest Technical College generally has two well defined building entries off of Grant Avenue that are easily accessible via pedestrian paths and a small number of parking spots on campus. However, the main campus entry is more understated than the more prominent entry to the Allied Health addition. Furthermore, the main parking areas are far removed from the main entry which provides limited choices. This is confusing and inconvenient for visitors, and a stronger connection between the parking, materials, forms and landscaping in relationship to the primary entrance to the building should be introduced to establish clear hierarchy of entrances. It is also recommended that the long-term plan include relocating the primary entrance from Grant Avenue to the south elevation to help reinforce the presence of the college on highway 50, and to provide more parking in closer proximity to the "front door". This will help reinforce wayfinding, as well as, strengthen the college's identity in the community. The other secondary entrances are too understated and could be easily upgraded with better signage, landscaping and simple canopied protection from the elements.

Internal Signage, Circulation, and Wayfinding

The college does not appear to have standardized signage throughout the campus that is color coded and keyed to a unified numbering system. Admittedly, the campus is relatively easy to navigate due to its relatively small size, but updated and consistent room signage would be very helpful and serve as an indicator of a well-run and organized college.

Despite the compact nature of the college, it is also recommended that a campus mapping diagram and location system be established and posted throughout the campus at key intersections and pedestrian by-ways. This type of system employed successfully at airports and shopping malls will significantly help the university create a well guided experience to all visitors, students and staff.

Informal Gathering Areas

The college is making attempts to improve the informal gathering areas for the students. They definitely recognize the importance of providing unique spaces for informal meeting spaces for spontaneous social interaction, informal meetings, group study areas, or even "heads down" quiet areas. Like most MnSCU campuses, there are good opportunities to improve building corridors through the strategic placement of informal gathering areas to allow for "impromptu" meetings and social gatherings. However, the most important space missing from the Northwest Technical College campus is a large gathering space, such as a commons, where the activity level and exposure of students to one another is much higher than "huddle" spaces. This "buzz" that comes from social interaction at a higher density is an important shared experience for young adults and should be provided.

Finishes and Furniture

The general appearance of finishes and furniture at Northwest Technical College is in generally good condition. This is also reflected in the very low FCI. However, a consistent character and palette should be developed that would establish a uniform brand and better support a higher education aesthetic. The recently complete renovations of classrooms would be a good start, and it is strongly recommended that a phased update for finishes and furnishings be established with a room by room approach to update the overall campus to the same level.

Toilet Facilities

Restrooms throughout campus are in generally in fair to good condition. However, several facilities are deficient in fully meeting ADA standards in regards to proper mounting heights of toilet paper dispensers, the presence of protective covers on sink drains, and proper mounting height of accessible grab bars.

Loading Docks

The centralized facility for deliveries to the campus is too small and there is no adequate storage for even short term duration. Deliveries are further hindered by the difficult access from the parking area with awkward turning radiuses. In addition, the unprotected loading area means that trucks extend into the parking lot and is exposed to considerable pedestrian traffic. A much larger loading dock and receiving area should be planned for in a central location as part of a future building phase.

Space Utilization

Northwest Technical College's combined space utilization is currently measured at 73% for classrooms (110) and labs (210) based upon the report dated February 8, 2012. The 14 classrooms (71%) and 12 labs (74%) listed in the report are all located in the primary building on campus except one lab located in a leased facility.

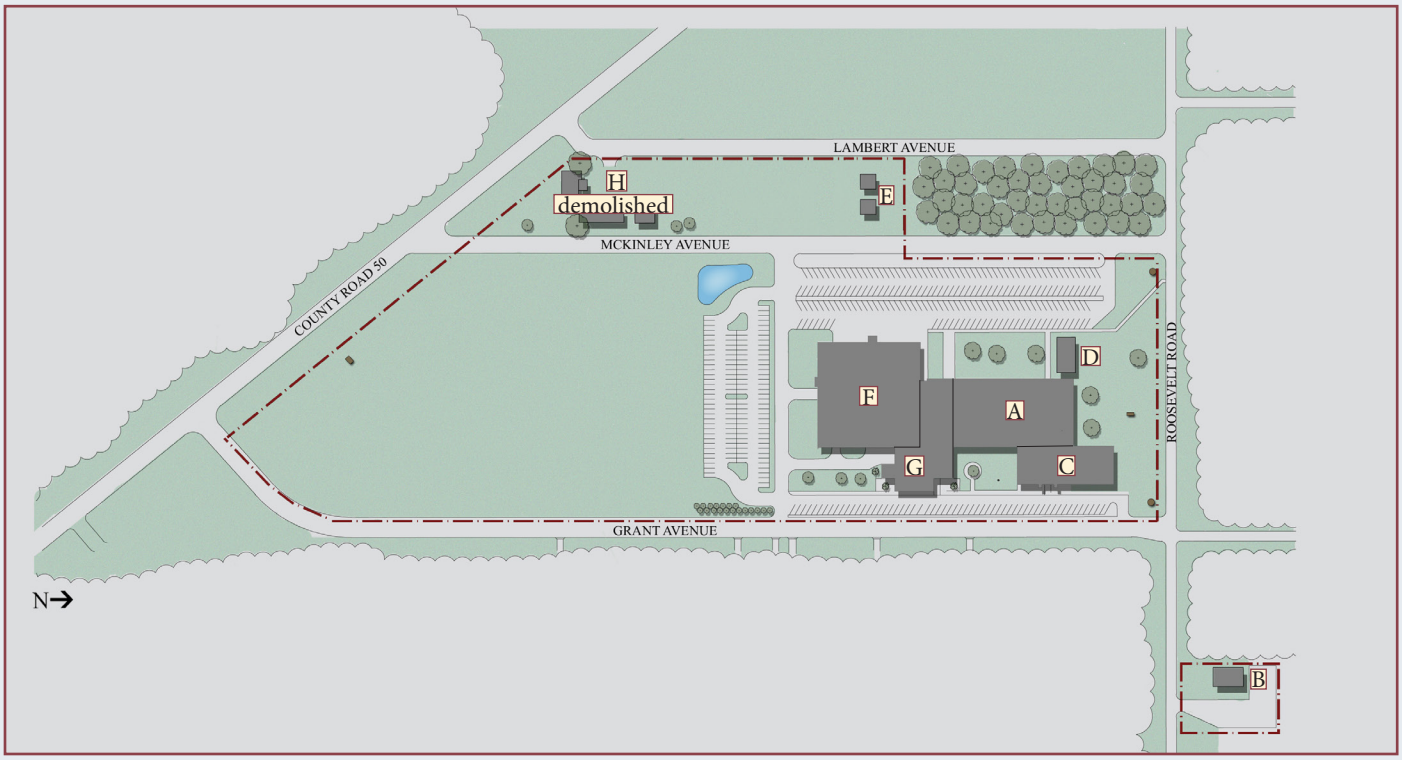
Observations:

- 6 of the 26 classrooms/ labs are measured at greater than 90% usage
- 12 of the 26 classrooms/ labs are measured between 65% and 89% usage
- 8 of the 26 classrooms/ labs are measured at usage below 65%
- Only one lab (210) space out of 20 is measured above 64% at 81%, and all others are below 65%
- Seat usage varies significantly, but averages only 45% for combined classrooms and labs
- Not all of the classrooms are well appointed, well lit and configured appropriately for classrooms. Presentation technology and access to electronic media and systems seem appropriate in most classrooms
- A number of classrooms have been updated and are nicely appointed. The recent technology lab renovation for the Automated Technology Center is an excellent example of high quality and innovative lab design for workforce programs.

Facilities Overview

Gross Square Footage	98,853
Replacement Value	$21,278,000
Current Backlog	$2,319,000
Current FCI	.11
10-year Backlog	$8,987,000
10-year FCI	.42

Space Type	SF	%
1. Classroom	32,400	30.3%
2. Labs	7,750	7.2%
3. Office	22,705	21.2%
4. Study	3,310	3.1%
5. Special Use	27,640	25.8%
6. General Use	7,365	6.9%
7. Support	5,833	5.5%
8. Residential	——	0.0%



BUILDING NAME		APPROX. GSF	CONSTRUCTED	RENOVATED
A.	Main Building	82,427 (total)	1966, 1972, 1985, 2006	2008
B.	North Annex	1,426		
C.	Allied Health	11,760		
D.	West Annex	1,800		
E.	Garages	1,248 (total)		
F.	Classroom Shop		1972	
G.	Cafeteria		1985	
H.	South Annex		Demolished	

Facility Condition Index (FCI) summary

The general condition of the Northwest Technical College's facilities is excellent with an FCI of only .03. The only significant backlog project involves replacing the roof on the Main Building for a total of $494,000. This project is listed as a current HEAPR request.

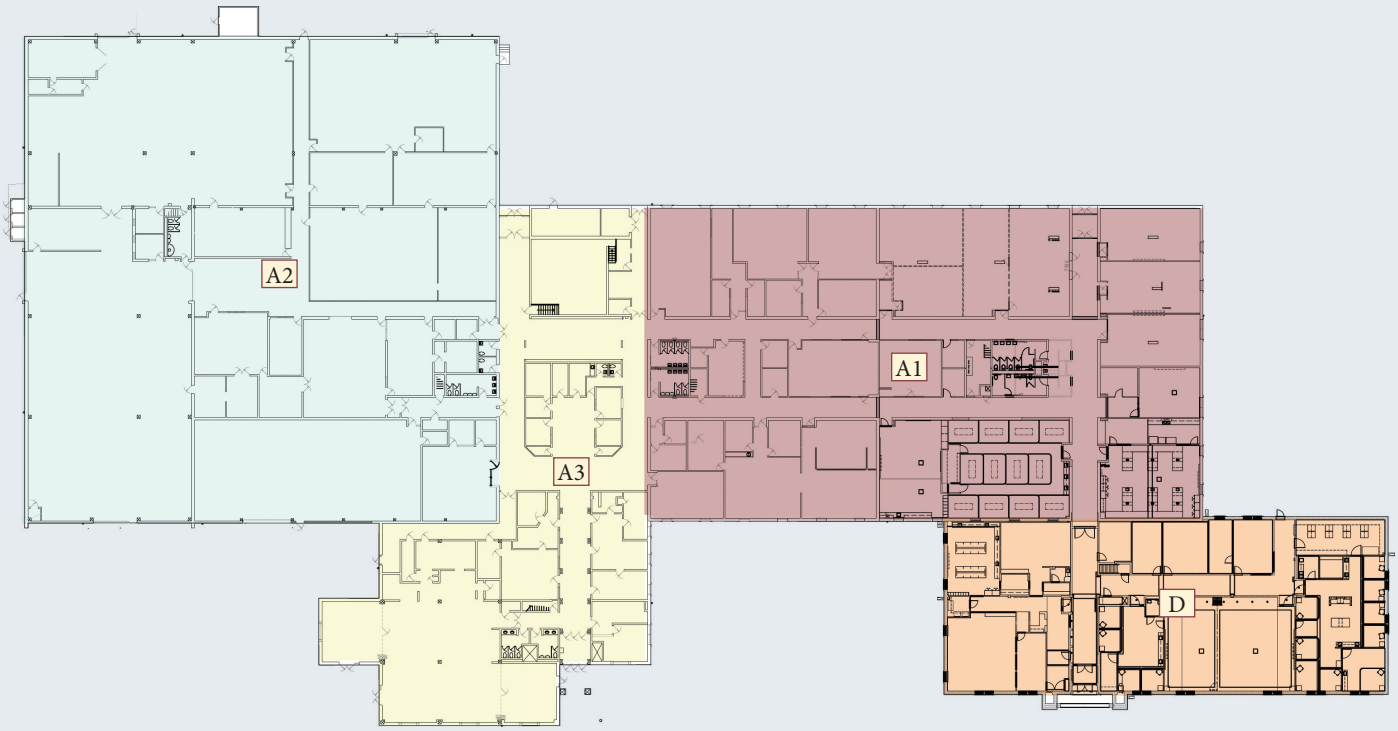
Student Housing

Northwest Technical College does not own or operative residential facilities for its students. However, students are able to access campus life services and activities at Bemidji State University. Learners can live in the BSU dorms and access the meal plans, health services, and recreational activities.

For students wishing to live off campus, NTC provides contact information for several property management companies and other resources for students to locate a place to live.

Aligned Institution

The Board of Trustees for Minnesota State Colleges and Universities aligned Northwest Technical College and Bemidji State University in 2003. The institutions share administration, business services, information technology, select student services, and some academic areas.



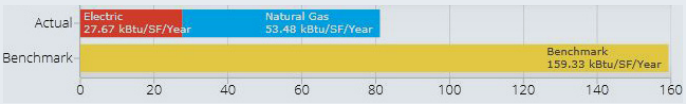
ADDITION NAME		APPROX. GSF	CONSTRUCTED	RENOVATION
A1.	Main Building (Original Structure)	33,099	1966	2008
A2.	Class and Shop Addition	38,807	1972	
A3.	Cafeteria Addition	10,521	1985	
D.	Allied Health	11,760	2006	

Energy Analysis

Tracking Trends

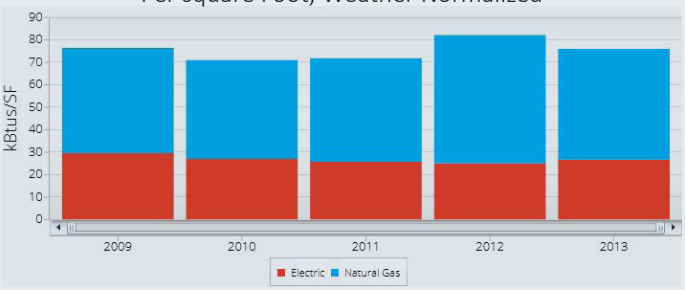
NTC tracks energy consumption through the online B3 Benchmarking Tool. While many types of analysis are possible, Energy Use Intensity (EUI) gives a good overview of how much energy a campus consumes per square foot. EUI is measured in kBtu/SF.

Benchmark By Fuel Source



Annual EUI

Per square Foot, Weather Normalized



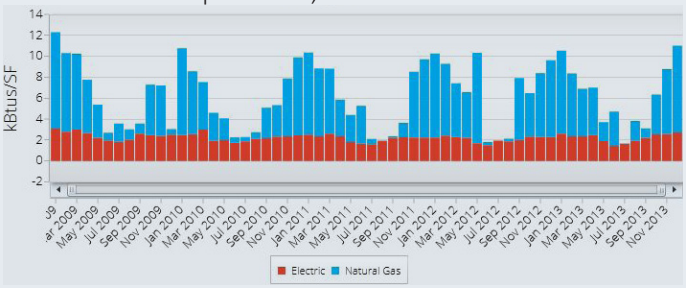
Although total energy consumption has dropped since 2008, energy use is actually slightly higher when normalizing for weather. May 2012 had significantly higher natural gas usage which should be addressed.

The NTC campus is in the 62nd percentile of the 136 similar sites (college classrooms) in the B3 Benchmarking system.

The energy data suggests that there might be room to increase the energy efficiency of the building through renovation or operation.

Monthly Continuous EUI

Per Square Foot, Weather Normalized

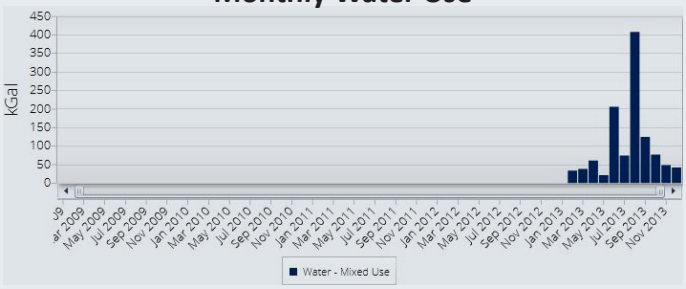


Water Analysis

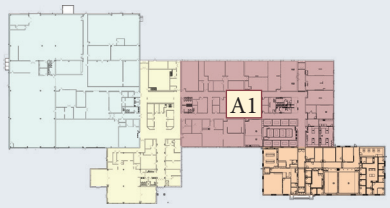
Tracking Trends

Annual Water Use

Monthly Water Use



Main Building (NWTC)



Keyplan

Fast Facts:

Letter on Key Plan	A1.
Building Number	263T0266
Building Use	Academic
Year Built	1966
Building Size	33,099
Number of Floors	1
Current Replacement Value	$8,892,000
Backlog of Repairs Value	$494,000
Current Facility Condition Index (FCI)	0.06
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Building Exterior

Typical Corridor

Bison in Side Corridor, no Signage

Typical Classroom

Computer Lab

ITV Room

Main Building (NWTC)

Space Utilization Summary:

- Seat Usage Percent: %
- Hours Usage Percent: %
- Spaces include media center, traditional classrooms, computer labs, faculty offices, and support areas.

Condition Summary:

- Area seems well maintained with updated finishes.

Structural System:

- Concrete double tees. Masonry throughout.

Technology Considerations:

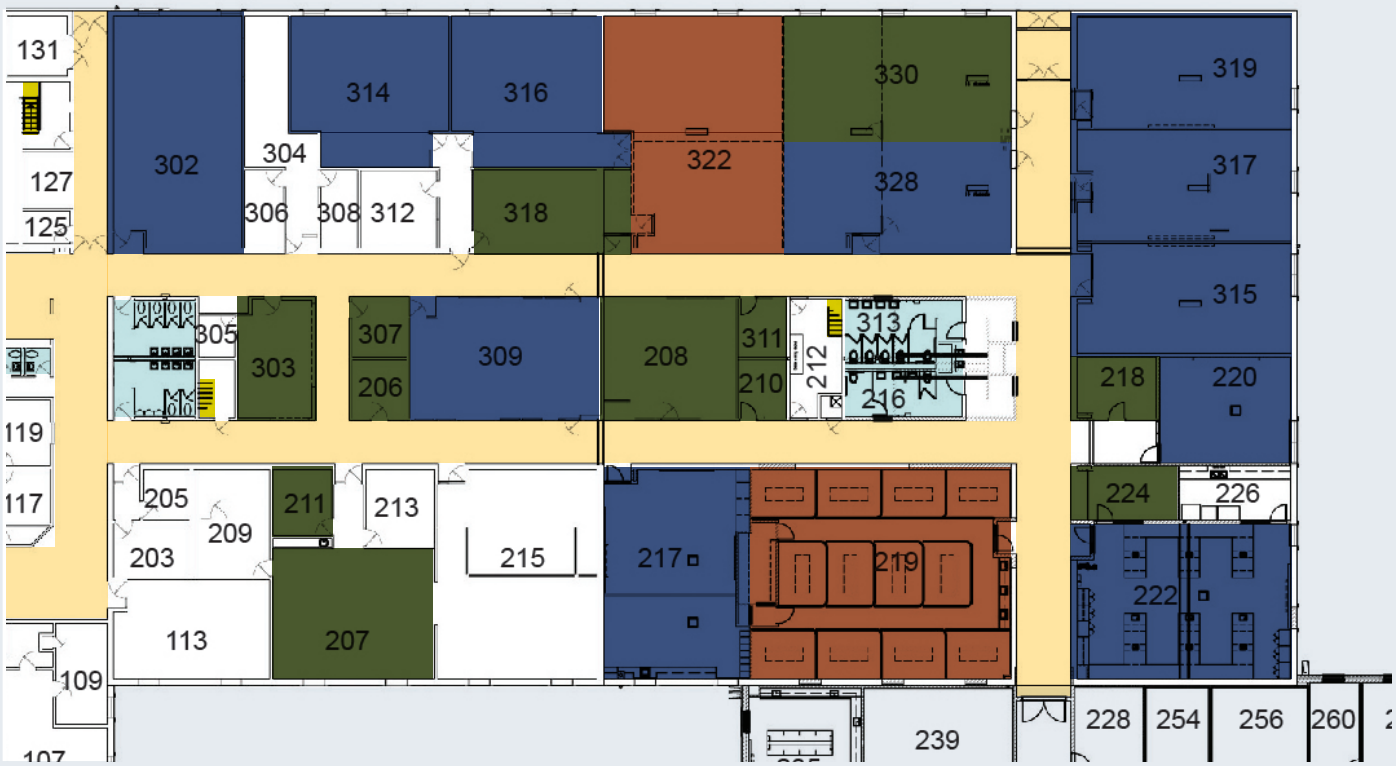
-

Current HEAPR Requests:

Additional Comments:

- Many spaces lack natural light and visual interest.
- Corridors feel narrow and compressed due to low ceiling heights, but finishes are pleasant.
- Banner signage helps with wayfinding and program identification.

Main Building (NWTC)

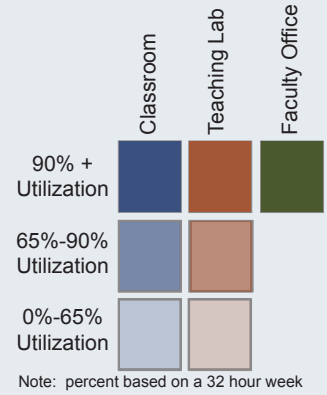


Space Use

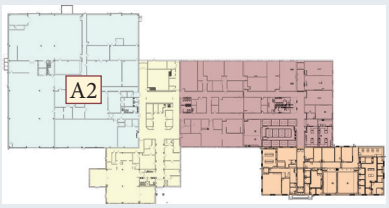
- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

Main Building (NWTC)

Space Utilization



Class and Shop Addition



Keyplan

Fast Facts:

Letter on Key Plan	A2.
Building Number	263T0472
Building Use	Academic
Year Built	1972
Building Size	38,807
Number of Floors	1
Current Replacement Value	$3,879,000
Backlog of Repairs Value	$73,000
Current Facility Condition Index (FCI)	0.02
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	


Building Exterior


Construction Electricity Lab


Informal Lounge Area


Trade Lab


Trade Lab


Typical Corridor

Class and Shop Addition (cont.)

Space Utilization Summary:

- Seat Usage Percent: %
- Hours Usage Percent: %
- Spaces include trade labs for technical programs, classrooms, and support spaces.

Condition Summary:

- Spaces appear to be well maintained.

Structural System:

- Concrete double tees. Load bearing masonry.

Technology Considerations:

-

Current HEAPR Requests:

Additional Comments:

- Banner signage helps with wayfinding and program identification.
- "Northwoods" aesthetic is used in lounge areas.

Class and Shop Addition (cont.)

Space Use

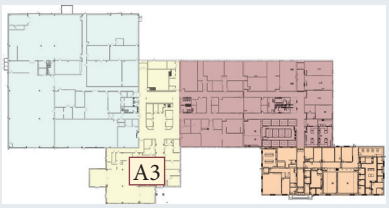
- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

Class and Shop Addition (cont.)

	Classroom	Teaching Lab	Faculty Office
90% + Utilization			
65%-90% Utilization			
0%-65% Utilization			

Note: percent based on a 32 hour week

Cafeteria Addition



Keyplan

Fast Facts:

Letter on Key Plan	A3.
Building Number	263T1085
Building Use	Student Services
Year Built	1985
Building Size	10,521
Number of Floors	1
Current Replacement Value	$2,826,000
Backlog of Repairs Value	$33,000
Current Facility Condition Index (FCI)	0.01
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	


Main Campus Entry


Corridor from Main Entry (North)


Corridor from Main Entry (South)


Typical Corridor


Informal Lounge Space

Cafeteria Addition (cont.)

Space Utilization Summary:

- Seat Usage Percent: %
- Hours Usage Percent: %
- Spaces include food service, administrative offices, enrollment services, bookstore and mechanical spaces.

Condition Summary:

-

Structural System:

-

Technology Considerations:

-

Current HEAPR Requests:

Additional Comments:

- "Northwoods" aesthetic is used in lounge areas.
- "Log cabin" feel to bookstore entry seems out of place at the main entry to the campus.

Cafeteria Addition (cont.)

Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

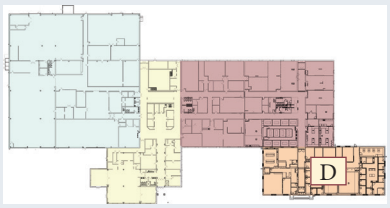
Cafeteria Addition (cont.)

Note: percent based on a 32 hour week

Allied Health

Fast Facts:

Letter on Key Plan	D.
Building Number	263T2006
Building Use	Academic
Year Built	2006
Building Size	11,760
Number of Floors	1
Current Replacement Value	$3,159,000
Backlog of Repairs Value	$0
Current Facility Condition Index (FCI)	0.00
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan


Entry to Allied Health


Transition to Allied Health Addition


Simulation Lab


Corridor Space and Copy Center


Simulation Lab

Main Corridor

Allied Health (cont.)

Space Utilization Summary:

- Seat Usage Percent: %
- Hours Usage Percent: %
- Spaces include training labs for dental assistant, nursing, and other allied health careers.

Condition Summary:

- Addition was complete less than 10 years ago and is in excellent condition.

Structural System:

- Concrete columns, load bearing masonry.

Technology Considerations:

-

Current HEAPR Requests:

Additional Comments:

- Scale of main entry to Allied Health competes with main campus entry further to the south.

Allied Health (cont.)

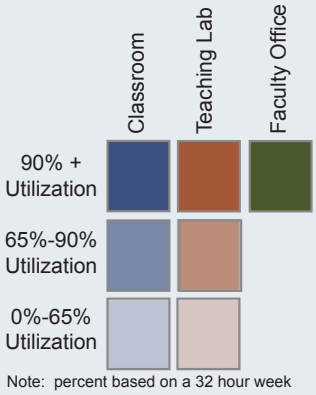
First Floor

Space Use

- Circulation
- Vertical Circulation
- Bathrooms
- Classroom
- Teaching Lab
- Faculty Offices
- Support Space

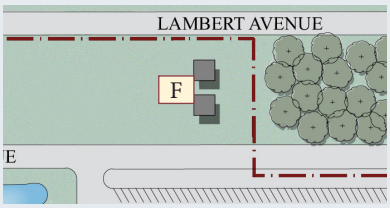
Allied Health (cont.)

First Floor



Note: percent based on a 32 hour week

Garage #1, Garage #2



Keyplan

Fast Facts:

Letter on Key Plan	F.
Building Number	263T0980; 263T0880
Building Use	Storage
Year Built	1980
Building Size	624; 624
Number of Floors	1
Current Replacement Value	$97,000; $97,000
Backlog of Repairs Value	$0; $0
Current Facility Condition Index (FCI)	0.00; 0.00
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Space Utilization Summary:

- Seat Usage Percentage and Hours Usage Percentage not applicable.
- Used for storage for the plumbing and automotive technology programs.

Condition Summary:

Structural System:

Technology Considerations:


Exterior View

Current HEAPR Requests:

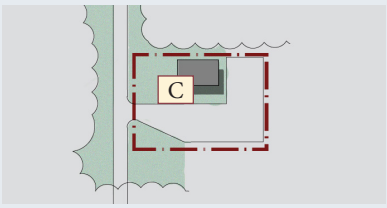
Additional Comments:

- Buildings are residential in both scale and aesthetic.
- Remote location is not advantageous.

North Annex

Fast Facts:

Letter on Key Plan	C.
Building Number	263T0368
Building Use	
Year Built	1968
Building Size	1,426
Number of Floors	1
Current Replacement Value	$143,000
Backlog of Repairs Value	$1,000
Current Facility Condition Index (FCI)	0.01
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Space Utilization Summary:

- Seat Usage Percentage and Hours Usage Percentage not applicable.
- Building is used by Continuing Education

Condition Summary:

Structural System:

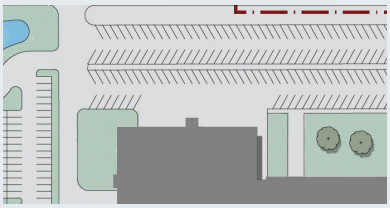
Technology Considerations:

Current HEAPR Requests:

Additional Comments:

- The residential appearance does not reflect the campus environment. However, the building is located in a residential zone away from the main building.

Storage Shed



Keyplan NA

Fast Facts:

Letter on Key Plan	
Building Number	263T0779
Building Use	Storage
Year Built	
Building Size	192
Number of Floors	1
Current Replacement Value	$30,000
Backlog of Repairs Value	$0
Current Facility Condition Index (FCI)	0.00
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	

Space Utilization Summary:

- Seat Usage Percentage and Hours Usage Percentage not applicable.

Condition Summary:

Structural System:

Technology Considerations:

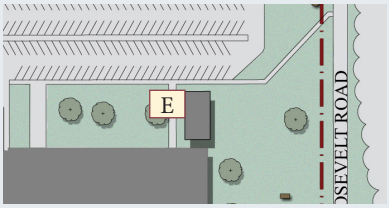
Current HEAPR Requests:

Additional Comments:

West Annex

Fast Facts:

Letter on Key Plan	E.
Building Number	263T0678
Building Use	Student Services
Year Built	1978
Building Size	1,800
Number of Floors	1
Current Replacement Value	$180,000
Backlog of Repairs Value	$0
Current Facility Condition Index (FCI)	0.00
5 Year Renewal Forecast	
5 Year Facility Condition Index (FCI)	



Keyplan

Space Utilization Summary:

- Seat Usage Percentage and Hours Usage Percentage not applicable.
- Space has recently been remodeled to house the Veterans Resource Center

Condition Summary:

- Recent additions for the Veterans Resource Center have improved the aesthetics, but no water or toilet facilities exist in the building.

Structural System:

- Wood framed. Built as a temporary building.

Technology Considerations:

Current HEAPR Requests:

Additional Comments:

- Building has a residential feel and scale that is inconsistent with the campus aesthetic.


Exterior View

Section 4A: Proposed Framework for Site Development

Vision for the Campus Experience

The Bemidji State University campus should communicate the spirit and values of the students and staff who learn, live, and work there. It should be deeply connected both functionally and aesthetically with its social and environmental context. It should foster a sense of community and identity that is unique to BSU.

While specific projects and priorities might shift over time, the value of any campus site project should be considered within the context of this overall vision. In order to support this vision, this Master Plan has developed a series of goals that will begin the process of fulfilling that vision.

Summary of Site Development Goals

1. Improve campus connectivity
2. Develop a more "centered" campus
3. Enhance connections to the lake
4. Develop a unified character for the landscape
5. Enhance campus boundaries
6. Improve environmental quality
7. Improve transportation patterns
8. Identify potential property for acquisition
9. Enhance existing landscape features
10. Develop new landscape features
11. Address parking challenges

The gateway outside Deputy Hall welcomes students to campus and introduces the campus character.

Site Development Goals

1. Improve campus connectivity

Pedestrian and Bicycle Routes

The Master Plan for Bemidji State should provide for pedestrian and bicycle trails within the Campus community and regional facilities. The resulting circulation pattern links the campus through the visually connected yet distinct open spaces and long-views, signage, and pathways that are inviting and offer orientation.

- Develop a green spine connecting the academic and residential parts of campus. This spine becomes the primary route in a hierarchy of pedestrian paths.
- Develop better landscaped pedestrian pathways between the residence halls, academic buildings, the lake, and the athletic fields.
- Sign and stripe bicycle routes clearly and provide attractive and safe bike storage options at logical locations
- Redevelop the streetscape along Birchmont Avenue to create a desirable and safe walking environment. Use the enhanced streetscape to slow traffic and improve crossings where pedestrians and vehicles conflict.
- Enhance the Native American "Red Lake Trail" along the waterfront to link the existing residential area to the campus and Diamond Point Park with an event space located along the waterfront east of the Student Union.
- Proper signage and wayfinding should support traffic flow and ease of access within the campus.

Outdoor gathering areas

BSU's campus can promote increased social interaction through effective location of outdoor furniture, gathering points, shady retreats, and plantings. Campus open space should provide for a diversity of uses through the creation of large open spaces for public events and smaller intimate spaces for shelter and more personal gatherings.

- Develop quadrangles on the lake to facilitate outdoor gathering spaces on campus and improve the connection between buildings and the lake.
- Orient residence halls around courtyards that encourage meeting outdoors.
- Relate exterior open spaces to the existing and intended programming of the surrounding buildings. Areas which are immediately adjacent or related to institutional or

Attractive pedestrian routes, like this bridge behind the library, enhance the character of campus and focus traffic in desirable locations.

educational facilities will be used more intensely than those on the edges.

- Work with staff to determine what outdoor learning areas might be useful.

Wayfinding Strategies

Good wayfinding balances the imperative of getting visitors to their destinations against the need to protect the overall visual integrity of the campus or site. The balance between efficiency and aesthetics changes depending on the situation. Factors to consider when determining an appropriate system include: percentage of first-time visitors; urgency of need for the service sought; quantity of destination choices; emotional and mental condition of visitors; complexity of the route; and level of ambient distraction.

Visual orientation is the first requirement of wayfinding. In other words, we have to know where we are to find our way to somewhere else. Distinctive entrances can build cues back into the environment, as can signs, names, colors, artworks, landscaping, and even sound.

Good wayfinding usually seeks the fewest signs using the fewest words. For BSU, no more than three levels of directional signage shall be used so that visitors need to make only two decisions before reaching their target. Wayfinding particulars then change, depending on whether signs are for motorists or pedestrians. Drivers generally read signs on the move and need information in advance of decision points. Pedestrians generally stop to read even simple signs and need them at decision points; they want to see their destination (or next sign) before they make a decision.

Map directories, though often necessary, are overrated as a self-guiding tool. For BSU, the following tactics can increase a map's effectiveness:

- Portraying information pictorially or literally
- Providing drawings in perspective
- Mounting the map horizontally and orienting it to the compass
- Enabling viewers to look from a map's landmarks to its real counterparts
- Placing limits on remote legending (although usually necessary, it inhibits comprehension)

For this reason, color is best used in conjunction with other visual and verbal tools (numbers, words, names, etc.) to reinforce wayfinding. For colors to be truly useful in coding, visitors must be able to name them. Beyond basic red, yellow, blue and green (and maybe orange), verbal and visual continuity falls off.

Underutilized lakeside areas, like this one behind the Union, provide opportunities for quadrangles and other gathering spaces.

2. Create a more “centered” campus

The current campus is a “bowtie” shaped campus with an academic south side and a residential northwest side and a “pinched” middle that discourages interactions, resulting in a less active campus life. Finding ways to connect the two parts of campus both physically and in character will enhance the student experience.

- Develop a green spine connecting the academic and residential parts of campus. It should act as both a physical and visual connection from north to south.
- Acquire property and build facilities that widen the campus at its middle.
- Locate highly desirable activities, such as food services, near the middle to draw students together.
- Reorganize campus entries, roadways, and parking facilities to promote the formation of the academic core as a pedestrian environment.

3. Enhance connections to the lake

Lake Bemidji is an incredibly valuable but underutilized asset for the BSU campus. Increasing visual and functional connections to the lake will improve the character of the campus and enhance the student experience.

- Reorganize and eliminate secondary uses, such as service roads and loading docks, along the lakefront.
- Create quadrangles that connect groups of buildings to the lake and each other.
- Provide a variety of scales of outdoor gathering areas as a sequence along the lake.
- Use hardscape and naturalized areas to provide a variety of choices along the lakeside. Plazas can include movable furniture and other recreational features. Naturalized areas should offer feelings of seclusion and escape.
- Provide sheltered outdoor areas to extend the season of use along the lake. Windbreaks and protection from precipitation can significantly improve the usefulness of outdoor areas.
- Connect the campus pedestrian circulation network to the lakefront trail.
- Orient new and remodeling building projects so that buildings address the lake. Windows should provide views for indoor areas that serve many students. Significant entries should link indoor spaces to lakefront areas.

4. Develop a unified character for the landscape

Landscape Design character

Signage can be artistic and educational, as well as functional.

The BSU Campus is strongly associated with its Northwoods and lakeside setting. Using this character to inspire the design of outdoor spaces throughout campus can reinforce this identity and help unify the campus experience.

- Reinforce the campus identity as a woodland campus through the use of northern woodland species. Choose from species associated with these plant communities:
    - Boreal Forest Community: Balsam Fir, White Spruce, Paper Birch
    - Mixed Hardwood Forest Community: Basswood, Hemlock, Maple, Bur Oak, Aspen, Ironwood
    - Pine Woods Community: Jack Pine, Red Pine, White Pine, Alder
    - Second Growth Forest Community: Quaking Aspen, Paper Birch
- Use these species in all areas of campus ranging from quadrangles to parking lots.
- Enhance connection and existing relationships to the lakefront. Utilize vistas and views in the design of both buildings and outdoor areas.
- Tie natural site elements into the campus design, such as wood, water and stone.
- Use public art to meet utilitarian needs as well as to provide focal points of interest throughout campus. Benches, bike racks, signage, and other features can be beautiful focal points.
- Consistently use site furnishings in all portions of campus. Provide flexible seating and gathering options that encourage interaction.

Lighting

At night, the intelligent and sensitive application of light will have a major impact on the campus experience. Lighting is especially important for a northern campus with long winter nights. Proper selection and placement of lighting fixtures compose and enhance the overall effect. The quality, balance, contrast, and focus of the light in the night environment can reveal the incredible assets of the campus while improving safety and security.

- Illuminate and show contrasts between building and paving materials to lead pedestrians safely through the campus.
- Use lighting to indicate a change of place at campus borders.
- Security lighting must provide recognition at a sufficient distance to allow for evasive action if needed. Better visibility promotes a feeling of safety, which in turn, can

Locating the historic fireplace at the lake edge provides a unique gathering space.

increase pedestrian activity.

5. Enhance campus boundaries

Create stronger campus entry points

This master plan creates a stronger structure for the campus and its landscape by creating a hierarchy of "points of entry." This helps enhance the campus identity and improves wayfinding to and within campus.

- Clarify the campus entry by creating "campus corners" where 15th, 17th, and 19th Streets intersect with Bemidji Avenue.
- Provide gateways at each end of Birchmont Avenue to bookend the campus.
- As service routes along the lake are changed, design the space that continues from Lake Front Drive so that it feels like a scenic approach to campus.
- Establish signage, beginning at highway exits, that communicates the campus identity and leads visitors to main entrances.
- Establish a stronger pedestrian link to Downtown Bemidji. Use signage and landscaping to draw visitors to campus.

Landscape character at campus edges

The perimeter of the Bemidji campus creates a visual image for the University. Using plants and signage at the edges of campus that speaks to the character of the entire campus develops a more intriguing story about BSU.

- Build a landscaped fence along Bemidji Avenue.
- Develop monumental signage and landscape as "campus gateways" at Birchmont and 15th Street, Bemidji and 17th Street, Bemidji and 19th Street, and at both ends of Birchmont Avenue.
- Establish a naturalized character for the edge, providing a Northwoods feel for the campus. Regional vegetation will soften this now hard edge.
- The entries should be pedestrian and vehicle friendly.

6. Improve environmental quality

Environmental stewardship is one of the three core values of Bemidji State University. Incorporating sustainable site design strategies communicates this value in a way that can be experienced every day. These strategies can also be incorporated into educational programs.

- Allow vacant landscaped areas to naturalize and use native and hardy plants across campus.

While not on campus property, Diamond Point Park's heavily wooded landscape contributes to BSU's Northwoods character.

- Incorporate storm water best management practices (BMPs) wherever possible. Permeable pavers, infiltration areas, naturalized drainage swales and other features can be functional and beautiful.
- Create dedicated space for organic gardens for the campus food service. Plant edible landscapes to highlight the connection between food choices and the environment.
- Provide priority parking for high mileage, low emission vehicles and carpoolers.
- Incorporate local, sustainably-sourced, recycled, and recyclable landscaping materials wherever possible.
- Use paving materials that reduce heat island effects and provide shade in parking lots and other large paved areas.

7. Improve transportation patterns

Create a hierarchy of vehicular routes

Birchmont Avenue is clearly the primary route for driving across campus, but the rest of the network seems disjointed and difficult to negotiate. Simplifying traffic patterns and providing routes with fewer car-pedestrian conflicts will improve wayfinding and safety.

- Provide Birchmont Avenue with a streetscape that communicates the character of campus, slows traffic, and allows for safer pedestrian crossings. Bumpouts, striping, landscaping, and other tools have been proven to improve safety and enhance the driver's experience.
- Straighten 19th Street so that it provides a clear and safe east-west route across campus and through the housing and recreational portions of campus. Separate parking areas from the road with landscaping. This will also simplify and reduce pedestrian crossings.
- Relocate loading areas so that service drives are not needed along the lake and in important pedestrian areas.

Improve parking

The current available parking spaces appear to be adequate in number, but not adequately distributed or located to accommodate the student and staff demand. In addition, sprawling surface parking lots at the edges interfere with the character of the campus.

- Construct low-level ramps closer to the campus center and individuals' office, classroom, or dorm room.
- Provide priority parking for high gas mileage, low emission vehicles and carpools.
- Landscape surface parking lots with native species to provide shade and visual relief. Islands and strips of

Lighting choices, including fixture types and light levels, can enhance the campus experience.

landscaping help clarify parking areas when striping disappears under snow and provides snow storage areas.

- Use permeable paving, infiltration areas, and other BMPs to improve lots' stormwater function and aesthetics.
- Encourage students to park “on campus” rather than on the neighborhood streets. Cooperation with neighbors and the city could help make this effort more positive and successful.

Mass transit

Encouraging students and visitors to use mass transit could help alleviate pressure on parking facilities and conflicts between vehicles and pedestrians.

- Enhance bus shelters and stops to make them attractive and increase awareness of mass transit as an alternative. They can also be useful areas for communicating campus identity and providing wayfinding tools.
- Work with the local transportation system to ensure that routes and schedules are serving students' needs.
- Coordinate a campus-scale shuttle service with the community bus system.

8. Identify potential property for acquisition

The current FYE and growth potential for the university implies a lack of need for potential expansion property. However, acquiring key properties would enhance the sense of unity across the campus.

- Acquiring properties along Birch Lane, across from the triangle woodlot, would significantly improve connectivity between the north and south parts of campus.
- The Department of Natural Resources and commercial site at the intersection of Bemidji Avenue and 23rd Street is the northwest cornerstone of the campus. The site acquisition would strengthen the campus’ northern edge and entry and provide a space for a future Facilities Center near the existing Maintenance and Receiving area.

9. Enhance existing landscape features

There are a series of existing natural and constructed spaces on campus that harbor great potential for transforming the university campus into a truly marvelous environment that could be the envy of the MnSCU system. These are identified as follows: The Bluff, The Alley, The Quad, The Green and The Copse. The existing natural environments on campus identified as “The Bluff” and “The Copse” should be enhanced through increased efforts to clear invasive species, control erosion, reduce compacted soils and introduce an infrastructure that

The existing campus boundary, along Bemidji Avenue is a missed opportunity to communicate BSU’s identity.

supports peopled activities in a low impact manner. The existing constructed environments on campus identified as “The Alley”, “The Quad” and “The Green” need to be significantly enhanced with an intensive effort to shape the environments into active people places with an intentional mix of soft (vegetation, trees, flowers, water) and hard (benches, paved surfaces, sculpture, lighting) features that support active human interaction within the environment on a multitude of levels both formal and informal. In the case of “The Quad”, the master plan suggests the demolition of Upper and Lower Hobson to make way for a dynamic quad truly focused on the lake and surrounded by academic buildings.

10. Develop new landscape features

Create a pedestrian mall: An intensively designed pedestrian mall that links the far northern extent of the campus with the center of the campus ending at the “Copse” will provide a clear framework for pedestrian movement from one side of campus to another, and effectively tie the two sides of the campus together. It will serve as a collector of students and staff as they travel between classes and activities, provide additional space for informal socialization, establish a structure to a very unorganized campus layout, and improve aesthetics.

Develop pocket forests: Certain areas of campus could benefit with replanting of native tree and plant species to create pocket forests that will enhance the university’s “Northwood’s” image, improve aesthetics, and help support the university’s vision of sustainability.

Create vegetable gardens as part of the local food network: It is suggested to plant vegetable gardens throughout the campus at key areas for the support of local food networks, and to supply the campus cafeteria with a good source of locally grown organic food. This will serve to enhance the beauty of the campus, and to invite the community of students and faculty into a communal effort that is both low-impact and healthy.

11. Address parking challenges

BSU commissioned a parking study by Walker Parking Consultants in August of 2011, and the readers are directed to that study for further information. This master plan identifies two locations that would support a two level parking ramp, but the cost of construction, safety concerns associated with ramps, and significant on-going maintenance costs raise concerns that must be addressed prior to proceeding with this avenue. It is strongly encouraged that parking concerns be addressed with alternative methods rather than construct parking structures on campus.

Improvements to stormwater management practices will have a direct impact on Lake Bemidji.

With reconstruction and streetscaping, 19th Street could offer an attractive and direct east-west connection through campus.

General Campus Planning Guidelines

1. Reinforcing Northwoods Character

- Reinforce the campus identity as a woodland campus through the introduction of northern woodland (Pines, Aspen and Birth) as well as preserve and enhance connection and existing relationships to the lakefront.
- Tie in natural site elements into the campus design, i.e. wood, water and stone.
- All public plazas for current and future buildings should be designed to integrate a Northwoods plant palette.
- Site amenities including appropriate trees, lighting and outdoor furniture should be considered as candidates for Percent-for-Art-funding.
- Re-define and plant existing and future parking areas to reflect Northwoods campus.

2. Linkage and Connection

- Develop a circulation pattern that links the campus through the definition of open space sequencing and visual connections.
- Create usable and inviting open space that connects interior space and exterior space functions.
- Establish signage, highway entries and access within campus can be redefined to accentuate and clarify the campus precinct and identity. “Wayfinding.”
- Create a livable and inviting campus environment from road sign to building door.

3. Building Social Interaction

- Provide spaces where the community and campus can come together. Strong academic and recreation programs serve this goal which can be further enhanced through the creation of all season gathering spaces, event centers and service amenities.
- All public plazas for current and future buildings should be designed to encourage gathering and outdoor events.

4. Shelter and Enclosure

- As a winter campus the Master Plan will address microclimate of open spaces for all seasons.
- Site new structures to accentuate usable, sheltered outdoor space.
- The Master Plan will address development and growth for a 20-50 year period.

5. Clear Accessibility

- The entry sequence to campus will be clarified with proper road alignments, entry gates, planting and site signage, to create a stronger sense of arrival.
- Position new buildings and future development so as to complement existing structures and promote the presence of the campus.
- Address vehicular and pedestrian circulation patterns throughout campus to clarify and eliminate conflict areas.
- A strong connection between the NW campus and the lakefront campus should be defined through the extension of 17th Street to Birchmont Drive to serve as a vehicular, pedestrian and transit corridor.
- Develop a system for intercampus transit/shuttle service from student housing to academic facilities and from parking to academic facilities.
- Remove obsolete structures and relocate conflict structures, i.e. boathouse.
- Develop waterfront walkway and waterfront plaza in association with student center.

Proposed Circulation Improvements

- Pedestrian spine runs through campus forming a connection between the north and south campus districts. The pedestrian spine will develop a circulation system, which connects the campus and all its internal associated uses.
- Campus entries designed as district gateways for vehicular and pedestrian systems.
- A pedestrian network throughout campus which is compatible with vehicular and shuttle systems.
- The re-organization of campus entries, roadways and parking facilities to promote the formation of the academic core as a pedestrian environment.
- The connection of the Native American “Red Lake Trail” along the waterfront to link the existing residential area to the campus and Diamond Point Park with an event space located along the waterfront east of the Student Union.
- Pedestrian and transit routes to link the campus core to Bemidji Avenue and its commercial district. Prominent entrances to the campus will announce its presence and present a more inviting appearance.
- The entries will be pedestrian and vehicular friendly, creating an inviting presence for campus and community.
- The vehicular and pedestrian entrances to the campus will be seen as the front door to the University. These entrances will provide a functional circulation pattern and be visually appealing to first time and everyday users.

- Proper signage and wayfinding will support traffic flow and ease of access with in the campus.

Building development and siting

Design and implementation of all new facilities on campus should be sited so as to respect existing architecture, open space and site circulation. Development should be sited and formed to create a human scale. All design should be aware of the site's natural features and the relationships associated with the design development, i.e. the lake.

Planting and Reforestation

- Areas of the campus will be naturalized using native species for campus vegetation to emphasize the natural character of the landscape.
- In high intensity use areas of the campus, plant materials appropriate to withstand intensive use will be planted. Open space of high use will be wither grass covered or hard surface.
- The landscape of the Bemidji region can have a dramatic visual impact and create continuity for the campus. The objective is to reintroduce the regional landscape to enhance the existing open space to create vistas, provide a variety of spaces and form connectors between the campus areas.
- To create a strong northern landscape framework for the campus, selected open space will be enhanced through the introduction of woodland species and existing woodland will be present.
- The development of the exterior open spaces will relate to the existing and intended programming of the space. Areas which are immediately adjacent or related to institutional or educational facilities will be used more intensely than those on the edges. The open space will provide both active and passive activities and will occur at a variety of scales from quiet and intimate to large, active and natural.
- The perimeter of the Bemidji campus creates a visual image for the University. The master plan establishes a naturalized character for the edge, providing a northern woodland feel to the campus. Regional vegetation will be used to soften this now hard edge and internal spaces will be supplemented with communities of native planting.

Northwoods Vegetation Palette

The following is a list of indigenous tree species which can be introduced into the Bemidji State University campus either individually as stands of trees or as groups of mixed forest types. The following pages contain images and characteristics of individual trees

Boreal Forest Community
Spruce/for forest community. Signature species include: Balsam Fir, White Spruce, Paper Birch

Mixed Hardwood Forest Community
The northern edge of the climax deciduous forest of North America. Signature species include: Basswood, Hemlock, Maple, Bur Oak, Aspen, Ironwood

Pine Woods Community
The white, red and Jade pine forests. Signature species would include: Jade Pine, Red Pine, White Pine, Alder

Second Growth Forest Community
The northern forest subsequent to disruption i.e. logging and/or development. Signature species include: Quaking Aspen, Paper Birch

Red Maple *(Acer rubrum)*
mature height 75-100'
spread 50-75'
light green leaves
crimson red fall color
Habitat Zone 3b-10

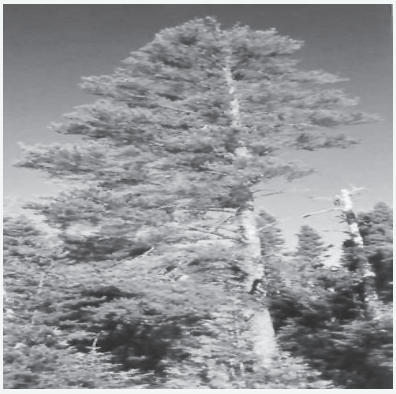
Paper Birch *(Betula papyrifera)*
mature height 50-75'
spread 35-50'
dark green leaves, whitish underneath
lemon yellow fall color
Habitat Zone 2-6

Bur Oak *(Quercus macrocarpa)*
mature height 75-100'
spread 75' or more
dark green leaves
with rounded lobes
yellow brown fall color
acorn with
burly fringed cup
Habitat Zone 3-9

Quaking Aspen *(Populous tremuloides)*
mature height 35-50'
spread 12-20'
bright green rustling leaves
with a sawtooth margin
bright yellow fall color
catkin-like clusters
with cottony seeds
Habitat Zone 2-6

Balsam Fir *(Abies balsamea)*
mature height 75-100'
spread 12-20'
stiff pointed needles
blue green
evergreen
pine cone 1-2.5"
Habitat Zone 2-7a

White Spruce *(Picea glauca)*
mature height 50-75'
spread 12-20'
flat, glossy, green needles
evergreen
pine cone, upright, 2-4"
Habitat Zone 2-5a



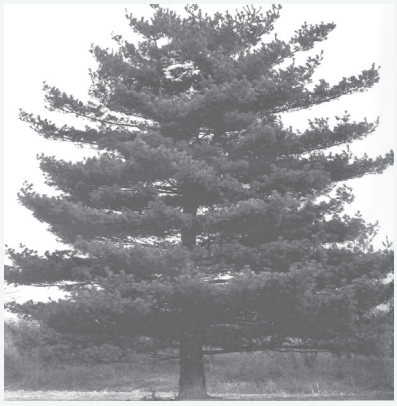
Jack Pine *(Pinus banksiana)*
mature height 50-75'
spread 35-50'
stiff, twisted
yellow green needles 3-5"
evergreen
pine cone 2.5-3"
Habitat Zone 3-6

Basswood ***(Tilia americana)***
mature height 75-100'
spread 50-75'
large heart shaped
dark green leaves
yellow gold fall color
samara
Habitat Zone 3-9a

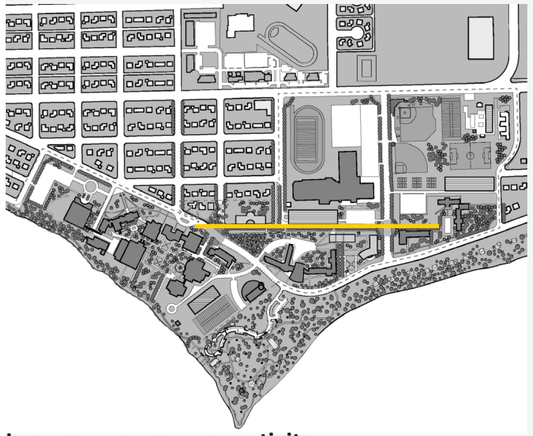
Red Pine *(Pinus resinosa)*
mature height 50-75'
spread 20-35'
stiff yellow green needles
dark yellow fall color
evergreen
pine cone 1.5-2"
Habitat Zone 2-6a

Hemlock *(Tsuga canadensis)*
mature height 75-100'
spread 20-35'
short flattened
dark green needles
evergreen
pine cone 1.5"
Habitat Zone 3-8

White Pine *(Pinus strobus)*
mature height 75-100'
spread 35-50'
Foliage
soft, slender,
dark green needles 2.5-5"
evergreen
pine cone 4-8"
Habitat Zone 3-9a

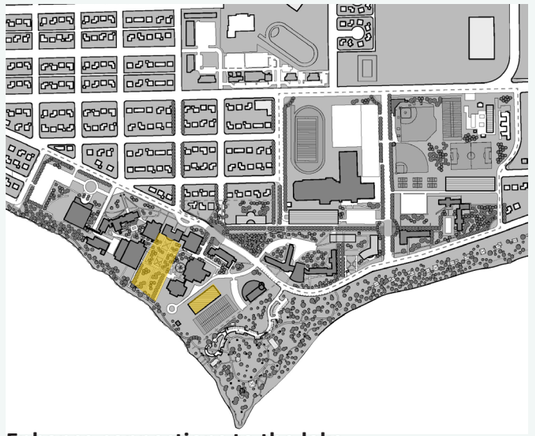


Master Plan: Proposed Campus Site Goal Diagrams

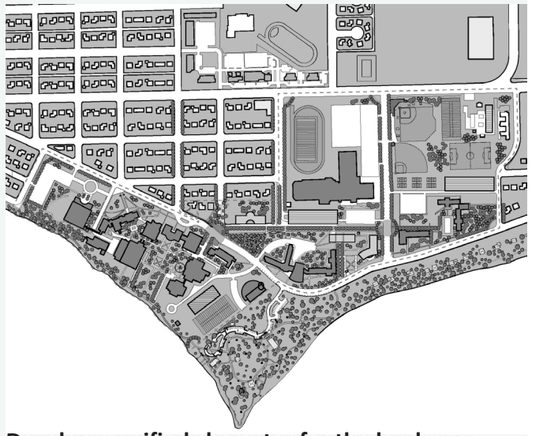


Improve campus connectivity

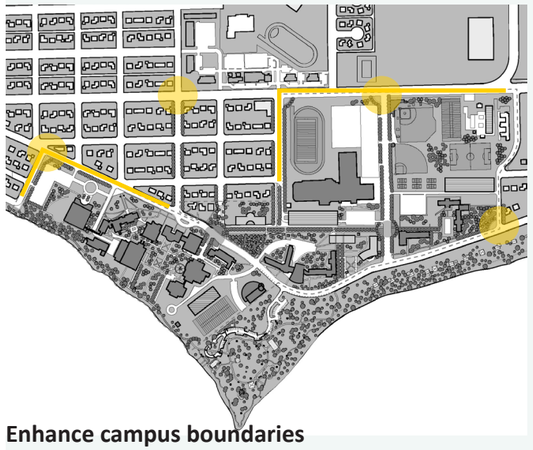
Develop a more “centered” campus



Enhance connections to the lake

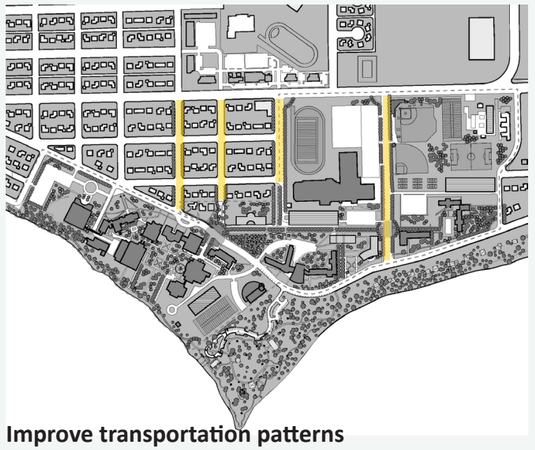


Develop a unified character for the landscape



Enhance campus boundaries

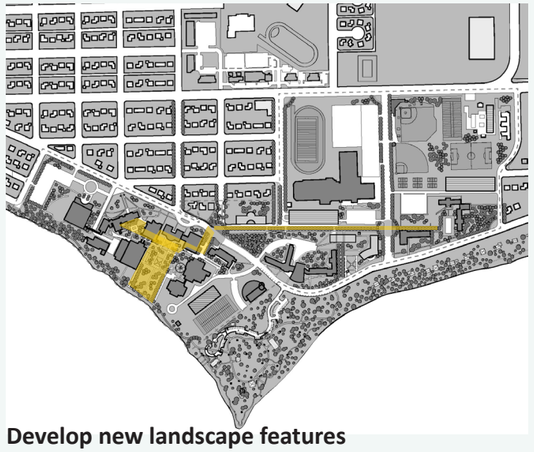
Improve environmental quality



Improve transportation patterns

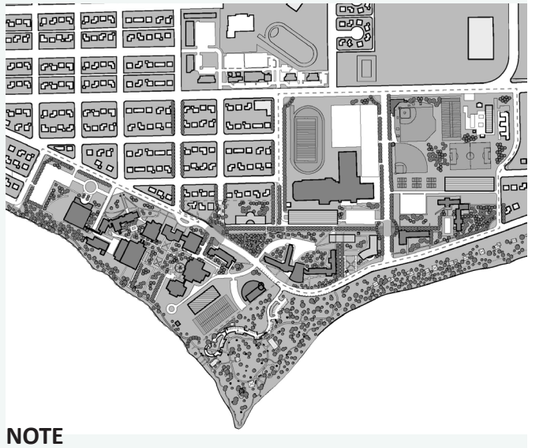
Identify potential property for acquisition

Enhance existing landscape features



Develop new landscape features

Address parking challenges



NOTE

Master Plan: Proposed Campus Layout Site Diagram - Long-term

Goals

- Improve Campus Connectivity
- Develop a more “centered“ campus
- Enhance connections to the lake
- Identify potential property for acquisition
- Develop a unified character for the landscape
- Enhance campus boundaries
- Improve transportation patterns
- Enhance existing landscape features
- Develop new landscape features
- Address parking challenges

Section 4B: Proposed Framework for Site Development

Vision for the Campus Experience

The Northwest Technical College campus should communicate the spirit and values of the students and staff who learn and work there. It should be deeply connected both functionally and aesthetically with its social and environmental context. It should foster a sense of community and identity that is unique to NTC.

While specific projects and priorities might shift over time, the value of any campus site project should be considered within the context of this overall vision. In order to support this vision, this Master Plan has developed a series of goals that will begin the process of fulfilling that vision.

Summary of Site Development Goals

1. Establish a four-sided campus
2. Develop a unified character for the landscape
3. Improve outdoor learning spaces
4. Enhance campus boundaries
5. Improve environmental quality
6. Improve transportation patterns/clarify parking
7. Sell adjacent North Annex
8. Establish a presence on Highway 50
9. Provide enclosed storage yard
10. Improve delivery services
11. Provide screening for residential neighbors
12. Develop experience-based landscape design

The Allied Health building and a large site sculpture help communicate the campus character.

Site Development Goals

1. Establish a four-sided campus

This plan recommends that the Community Technology and Construction Trades Center be developed on the southeast corner of the existing facility along Grant Avenue with a significant architectural entrance feature to attract attention from vehicles on County Road 50. It should be noted that this will not only establish a "presence" from the county road, but also enhance the educational image of the trade programs by having a new up-to-date facility at the campus "front door."

Landscaping should be enhanced on all four sides of the building, including gardens and seating areas like those that have been added on the east and north sides of the main building.

2. Develop a unified character for the landscape

With ample outdoor space, NTC has a unique opportunity to use landscape features to develop a campus character that will set it apart. Reforesting areas, expanding garden and seating spaces, creating walking paths, using site furnishings consistently, and enhancing parking areas can all contribute to the identity of campus.

Using native tree species like those recommended for the BSU campus (Balsam Fir, White Spruce, Paper Birch, Basswood, Hemlock, Maple, Bur Oak, Quaking Aspen, Ironwood, Jack Pine, Red Pine, White Pine, and Alder) could help the NTC campus feel more connected to its location and help associate it more strongly with the BSU campus.

Landscaped areas, native plantings, and attractive stormwater management features would also help communicate NTC's environmental stewardship. These kinds of features can also reduce maintenance costs if carefully designed.

3. Improve outdoor learning spaces

Creating and improving spaces for active and passive learning throughout the campus will enhance students' learning experience. Exterior classrooms and learning environments, in addition to improved aesthetics, will provide significant benefits to the college. These spaces can also highlight trade programs that are important to the identity of the college.

Screened storage and work yards will improve the overall aesthetics of the campus and provide a secure storage for the automotive programs. While it is acknowledged that the trades need "bone yards," there is an educational advantage to providing a secure and organized storage areas. These areas should be assets to the college, not just leftover spaces.

Gardens and native trees have enhanced the north and east sides of campus and should be incorporated on the south and west sides as well.

4. Enhance campus boundaries

Clearly defined campus limits help establish a strong sense of place and permanence for the college. This can be accomplished with monumental signage, cohesive landscaping, low walls, paving and landscape structures that create the Northwest Technical College as a "place," not just a building.

Increased landscaping at the corners of campus, especially using groupings of native trees and other vertical features would help anchor the campus. These elements can also communicate the campus identity at its edges and improve wayfinding to campus by differentiating it from its surroundings.

5. Improve environmental quality

Northwest Technical College can improve its commitment to sustainable design by adopting "clean and green" maintenance procedures, allowing for various vacant landscape areas to naturalize, providing priority parking for high mileage-low emission vehicles and carpooling, and storm detention ponds for pre-treatment of storm water run-off. It is also recommended that in conjunction with BSU, the college commit to the Taillories Declaration which is a worldwide consortium of colleges and universities dedicated to sustainable development and environmental stewardship.

Increased energy efficiency of the existing structures is hard to maximize, but future development should strive to surpass the state mandated "B3 guidelines."

6. Improve transportation patterns and parking

Currently, most vehicle traffic routes are through parking lots. This detracts from the sense of a formal arrival by car and makes it difficult to distribute traffic effectively. Separating drives from parking lots and creating a formal front drive with a drop off would provide campus with a more ceremonial sense of entry and would improve traffic flow.

While most students will likely continue to arrive at campus by car, it is desirable to encourage use of alternative transportation to reduce the need for additional parking in time. Enhancing the experience of bus or shuttle riders by providing an attractive shelter would have the added benefit of highlighting this option. It is also critical that sufficient, safe, and attractive bike racks be available for the same reason and to protect other site features from being used to lock up bikes.

While the number of parking spaces is more than adequate, the use of the lots is challenged by the availability of free on-street parking that is more convenient. It is recommended that the city needs to get involved to restrict on-street parking by non-residents, and the college enhance the parking by

Highly visible monumental signage like this, at the south edge of campus, help identify campus property, but could be enhanced with walls and plantings.

developing improved parking with landscaping, better traffic patterns and more clear access to multiple entries for convenience.

7. Sell adjacent property: North Annex

The North Annex building that is located northeast of the campus on Roosevelt Road is underutilized and does not provide any significant long-term advantages for the college in terms of program or additional space. Therefore, it is the recommendation of the master plan that the property be sold and returned to single family residential use.

8. Establish a presence on Highway 50

The campus should begin to establish a presence on Highway 50 by transforming the "empty lot" aesthetic into an attractive and active landscape appropriate for a college. In addition the primary address and entry should be located on the south elevation, so visitors clearly understand the "front door" location along a major thoroughfare.

9. Provide enclosed storage yard

An enclosed storage/ work yard should be provided for the trade programs and Building Services to improve the security of equipment and projects, as well as, enhance the safety of students, staff and the community. The construction trade's yard should also be enclosed for the same reasons.

10. Improve delivery services

Safety and ease of delivery for trucks will be greatly improved by providing a dedicated loading dock and delivery zone that is removed from the traffic patterns of visitors, staff and students.

11. Provide screening for residential neighbors

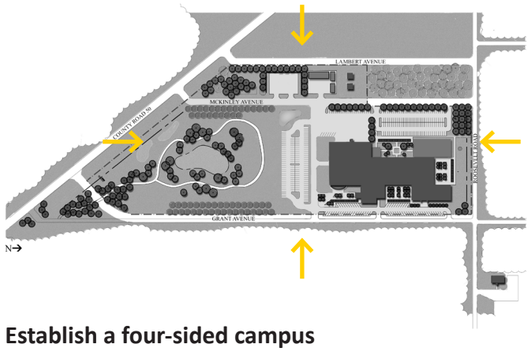
Improved screening of the campus parking areas along McKinley Avenue will provide a more attractive environment for the college's neighbors. In addition, certain areas should be provided with fencing or improved boundary delineation to discourage cut-thru between Lambert Avenue and McKinley Avenue.

12. Develop experience-based landscape design elements

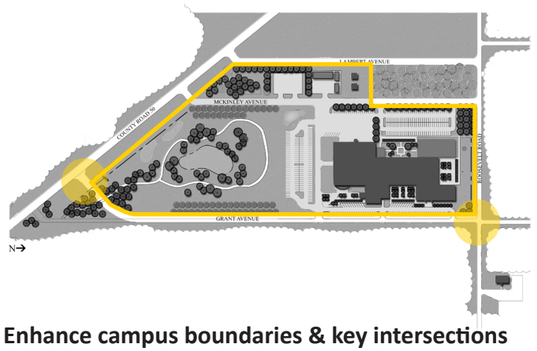
Develop the landscape into areas and zones that encourage active interaction with the campus by students and staff. This will also encourage the use by the neighborhood and turn the college into a physical asset for the community. Connected walks, shaded areas, seating, plantings and outdoor gathering spaces make for pleasant interaction on an informal or formal level, as well as encourage physical activity.

The main entry on the east side doubles as a parking lot, which undermines its sense of formal entrance.

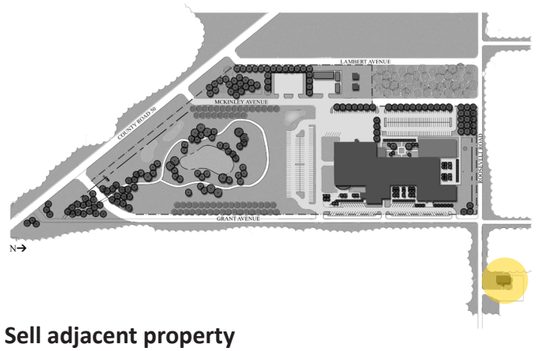
Master Plan: Proposed Campus Site Goal Diagrams



Establish a four-sided campus



Enhance campus boundaries & key intersections



Sell adjacent property

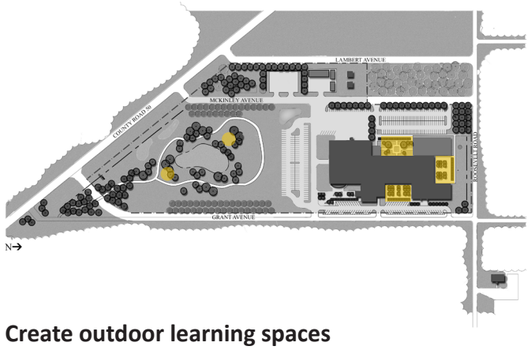
Improve delivery/create remote facilities storage

Develop a unified character

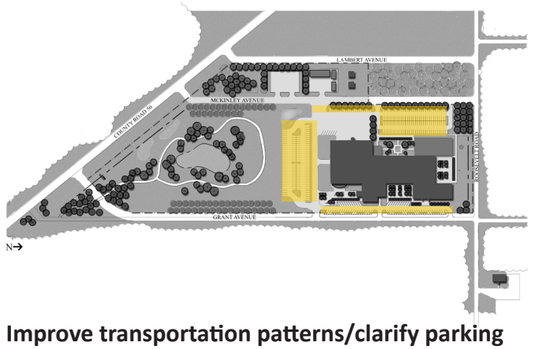
Improve environmental quality

Establish front door presence on County Rd 50

Improve screening for residential neighbors

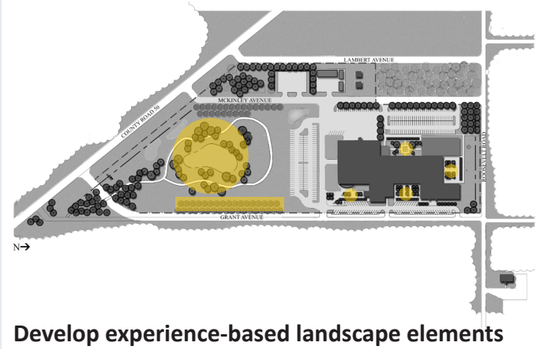


Create outdoor learning spaces



Improve transportation patterns/clarify parking

Provide enclosed trade yards & facilities



Develop experience-based landscape elements

Goals

- Improve outdoor learning spaces
- Sell adjacent North Annex
- Provide enclosed storage yard
- Improve delivery services
- Establish a four-sided campus
- Develop a unified character for the landscape
- Enhance campus boundaries
- Improve environmental quality
- Improve transportation patterns/clarify parking
- Establish a presence on Highway 50
- Provide screening for residential neighbors
- Develop experience-based landscape design

Section 5A: Proposed Framework for Building Development

Master Plan Goals

As a result of the multiple meetings with staff, faculty, the community and administration the campus master plan for Bemidji State University established the following 15 primary goals:

1. Improve access to parking
2. Identify potential property for acquisition
3. Create stronger campus entry points
4. Develop a more "centered" campus
5. Enhance campus boundaries
6. Identify top HEAPR projects
7. Identify top capital improvement projects
8. Improve environmental quality
9. Consolidate the facilities department
10. Create a more pedestrian oriented campus with a stronger connection to the lake
11. Demolish outdated and underutilized facilities
12. Support the university's academic master plan
13. Improve space utilization
14. Renovate aging buildings and infrastructure
15. Improve connection to the city through trails and roads

Facilities Development and Improvement

Replace and improve outdated facilities

BSU currently has a $270.3 million replacement value and a very high backlog of asset preservation totaling $30.0 million with a 5 year projected renewal needs of more than $30 million. Aggressive pursuit of HEAPR money, wise spending of capital bonding and increased repair and betterment funding by the institutions must happen simultaneously. In addition, demolition of outdated facilities (approximately 530,000 gsf) is recommended as an appropriate action to lower the continued cost of renewal to facilities that have outlived their expected facility life span. These facilities include Peters Hall, Hobson Memorial Union, Birch and Decker Halls, the hockey arena, Walnut Hall, Maple Hall, Cedar Hall, Tamarack Hall, and Oak Hall.

Improve campus wide space utilization

Current space utilization indicates a seat usage of 44% in classrooms and 16% in labs, and a 78% classroom/ lab usage. BSU should strive to reduce excessive campus space that is currently underutilized through selective demolition, and the judicious construction of new square footage to accommodate only facilities that cannot be accommodated within remodeled/ renovated existing space. This plan recommends that after the Sattgast Science addition all proposed new construction be balanced with a demolition of appropriate space to establish a "no net gain" of square footage to the campus unless enrollment begins to increase or special programs are developed that require expanded facilities. Note: the university has the highest gross square feet (GSF) per FYE of all the universities in the MnSCU system.

Provide improved program identity

This plan recommends that academic programs develop easily identifiable spaces and facilities which will strengthen the program "brand". This will create a stronger "program culture" for students, prospective students and staff. Successful examples include the expansion of Sattgast Hall for the sciences, the recently completed expansion and remodeling of Bridgeman Hall, and the scheduled renovation of Memorial Hall for the Business College.

Improve relationship with neighborhood

The primary concern of the neighborhood is the parking on the residential streets followed by the concern that the neighborhood is being converted to a source of cheap housing for students. This plan recommends the creation of a commission with city officials, university representation and neighborhood participation expressly charged with working towards long-term solutions for these problems.

Create a campus that is more "centered"

The current campus is considered a "bowtie" shaped campus with an academic south side and a residential north side and a "pinched" middle that discourages interaction resulting in a less active campus life. This plan proposes to locate a modern Student Union near the campus center between the academic and student life sides of campus. Additional property on Birch Lane between 16th and 17th needs to be purchased.

Improve residential facilities

The University is encouraged to significantly reduce the number of available beds (from 2,100 to 1,450) through selective demolition of outdated facilities (beginning with Maple Hall); remodel remaining facilities into units responsive to market demands (beginning with Linden Hall), such as apartment style units, private baths and single occupancy rooms; improve parking access; and establish one or more residence halls as a "green" dorm.

Improve the campus environmental quality

Environmental stewardship is one of the three *core values* of Bemidji State University. This plan promotes sustainability by creating dedicated space for organic gardens for the campus food service, allowing various vacant landscaped areas to naturalize, re-forested zones, storm water management, dedicating one residence hall as "green", providing priority parking for high mileage-low emission vehicles and "green free" remote parking lots. In addition, BSU should commit to adopting "clean and green" maintenance procedures, as well as, adherence to sustainable building guidelines mandated by the state. New facilities will need to comply with the "B3" legislation mandating improved environmental stewardship for buildings, but additional steps to push beyond those requirements will help establish the university as a state and regional leader in this area. In addition, the university should also consider aligning itself with the Talloires Declaration which is a consortium of colleges and universities across the world dedicated to environmental and sustainable development.

Energy Conservation

Reduction in campus size and replacement of selected facilities creates a great opportunity for energy conservation and sustainable design at Bemidji State University. Demolition of aging structures with higher FCI values will eliminate a number of issues, from outdated windows and HVAC systems, to poorly designed stormwater management strategies and ventilation systems. With new construction and significant remodeling, high efficiency heating, cooling, ventilation, and lighting systems should be used to reduce energy consumption and long-term costs while increasing comfort of students, faculty, and staff.

Consolidate the Facilities Department

This will facilitate more efficient distribution of materials and services for the campus; improve communication between facilities staff; and increase facility storage capacity.

Improve the tunnel system

The popular tunnel system can be improved through simple aesthetic upgrades, better signage, improved access points, and increased security measures.

Support the institutional master academic plan

It is the primary goal of the master plan to create campus facilities that support the academic mission and goals of the institutions by providing instructional space that is well-organized and equipped, attractive and readily accessed.

Institutional Alignment

Bemidji State University needs to capitalize on facility and academic opportunities presented by the alignment with Northwest Technical College. Advantages for academic laddering and facility efficiencies should not be ignored. Effective alignment can also help to respond successfully to enrollment challenges and the "flat growth" demographic trends facing MnSCU institutions outside the Twin cities metropolitan area.

Identify Key Capital Bonding Projects

The following projects will seek Capital Bonding and are listed in order of desired funding and completion. See "Recommended Projects" under Building Master Plan in this section for additional information.

General Obligation Bond Priority Projects

Project One: Academic Learning Center and Campus Renovation

- Revised Pre-design submitted Fall 2014
- Design funds Received Summer 2014
- Demolition of the existing 82,000 GSF facility
- Construct a 21st Century learning facility (28,200 GSF), replete with full-spectrum teaching facilities, student support spaces for formal and informal gathering
- Extensive renovation of five existing academic facilities (72,100 GSF) for faculty offices, classrooms and student support spaces.

Project Two: Bangsberg Fine Arts Renovation and Lobby Expansion

- Complete the renovation of the facility started in Project One above, and expand the lobby to provide better access to the theater and performance hall.

Project Three: American Indian Resource Center

- Expand the AIRC to include updated learning facilities and public spaces to accommodate expanded programming and community outreach

Revenue Bond Priority Projects

Project Four: Student Center

- Demolish upper and lower Hobson Hall (76,800 GSF) and Walnut Hall (57,000 GSF)
- Construct state of the art Student Center (66,000 GSF) including student services, activity/ game rooms, meeting rooms, club space, Student Senate facilities, cafes, campus food service, guest quarters and party rooms.

Construct Student Center

- Demolish upper and lower Hobson Hall (76,800 GSF)
- Construct state of the art Student Center (66,000 GSF) including student services, activity/ game rooms, meeting rooms, club space, Student Senate facilities, cafes, guest quarters and party rooms.

Reduce Asset Preservation Backlogs

The current and five-year Facility Condition Index values are .14 and .11 respectively.

- Current Replacement Value (CRV): $ 270,286,000
- Current Backlog: $37,989
- Current Facilities Condition Index (FCI): .14
- 5-year Backlog: $ 29,848,000
- 5-year Facility Condition Index (FCI): .11

Identify the top HEAPR projects

The following have been identified as top priority projects for asset preservation funding:

Campus wide controls	$4,250,000
Campus wide med. voltage	$2,000,000
Roof replacement Sattgast	$1.6m
Air handling unit replacement	——
Campus wide concrete replacement	$650,000
Condensate return replacement	$1,650,000
Re-keying exterior doors with electronic locks	——
Upgrade exterior lighting	$250,000
Upgrade kitchen area	——

Master Plan: Proposed Campus Layout Site Diagram - Short-term (2012-2019)

KEY

1. **Academic Learning Center**
2. **Fine Arts Renovation and Lobby Expansion**
3. **Residential/Commercial Partnership**
4. Student Union
5. American Indian Resource Center Expansion
6. Campus Center
7. Stadium/Exercise Science Center
8. Residence Halls
9. Facilities Center
10. Parking Structures

Master Plan: Proposed Campus Layout Site Diagram - Mid-term (2020-2027)

Bemidji State University

KEY

1. Academic Learning Center
2. Fine Arts Renovation and Lobby Expansion
3. **Residential/Commercial Partnership**
4. **Student Union**
5. **American Indian Resource Center Expansion**
6. **Campus Center**
7. Stadium/Exercise Science Center
8. Residence Halls
9. Facilities Center
10. Parking Structures

Master Plan: Proposed Campus Layout Site Diagram - Long-term

KEY

1. Academic Learning Center
2. Fine Arts Renovation and Lobby Expansion
3. **Residential/Commercial Partnership**
4. Student Union
5. American Indian Resource Center Expansion
6. Campus Center
7. **Stadium/Exercise Science Center**
8. **Residence Halls**
9. **Facilities Center**
10. **Parking Structures**

Section 5B: Proposed Framework for Building Development

Master Plan Challenges

Sixteen challenges were established during the information gathering stage of the master plan. On site review of existing conditions, information collected from previous plans and collective review by the master planning advisory committee developed a consensus for the following:

1. Overcome the "K-12" building aesthetic:
2. Develop a presence on County Road 50
3. The campus "front door" is difficult to locate and identify
4. Landscaping should be enhanced
5. Campus boundaries are poorly defined
6. Storage and Receiving facilities are inadequate
7. Trade yards are not screened
8. Trade programs presence is underplayed
9. There is no evident sustainable site design
10. Student service facilities are inadequate
11. Facilities are lacking a framework for innovative programs and services
12. Deferred maintenance issues must be addressed
13. Recommendations are needed for annex property
14. Student space is inadequate
15. Eliminate the need for leased properties
16. Accommodate the potential relocation of nursing programs to BSU campus

Facilities Development and Improvement

A stronger college image

Facility upgrades and new construction must reflect a higher education aesthetic in order to dispel the connotation that a technical school is not considered an exceptional education in its own right. The current "K-12" aesthetic of the original buildings is characterized by a utilitarian nature devoid of the enriched aesthetic environment of an institution of higher education. Improvement will help attract students, retain students and establish the college as an exciting and appropriate educational "step up" for high school students and individuals looking to advance their current educational experience. It should be noted that the attractive new Allied Health Center addition is a good example at how the college can improve it's image with appropriately designed architecture.

A campus presence on County Road 50

This plan recommends that the Community Technology and Construction Trades Center be developed on the southeast corner of the existing facility along Grant Avenue with a significant architectural entrance feature to attract attention from vehicles on County Road 50. It should be noted that this will not only establish a "presence" from the county road, but also enhance the educational image of the trade programs by having a new up-to-date facility at the campus "front door"

Parking

It is recommended to provide close-up parking for "high-mileage" and/or "high-occupancy" vehicles to reinforce sustainable design principles- especially since mass transit is non-existent for the campus. It is also a necessity to provide angled parking with wider than normal spacing for extended bed pick-up trucks.

Establish a college "front door"

This plan recommends that Grant Avenue be strengthened as the main campus road through improved parking, monumental signage and landscaping. The City of Bemidji has provided information identifying Grant Street from County Road 50 to the south shore of Lake Bemidji as a major new arterial road serving proposed developments along the south side of the lake. Traffic signals at County Road 50 and improved streetscape would all be part of the yet unscheduled road improvements.

Update the campus landscaping

Provide improved site development to accommodate better use of the site for active and passive learning; active and passive recreation; and improved environmental quality. Exterior classrooms and learning environments, in addition to improved aesthetics, will provide significant benefits to the college.

Improved environmental quality

Northwest Technical College will improve its commitment to sustainable design by adopting "clean and green" maintenance

procedures, allowing for various vacant landscape areas to naturalize, providing priority parking for high mileage-low emission vehicles and carpooling, and storm detention ponds for pre-treatment of storm water run-off. It is also recommended that in conjunction with BSU, the college commit to the Taillories Declaration which is a worldwide consortium of colleges and universities dedicated to sustainable development and environmental stewardship. Increased energy efficiency of the existing structures is hard to maximize, but future development should strive to surpass the state mandated "B3 guidelines".

Reduced backlog of deferred maintenance

NTC currently has a $19.9 million replacement value and a very high backlog of asset preservation totaling $1.7 million with a Facility Condition Index of .08. Aggressive pursuit of HEAPR money, judicious spending of capital bonding, and increased repair and betterment funding by the College must happen simultaneously to reverse the current status.

Define campus limits

Clearly defined campus limits will help establish a strong sense of place and permanence for the college. This can be accomplished with monumental signage, cohesive landscaping, low walls, paving and landscape structures that create the Northwest Technical College as a "place" not just a building.

Provide an enclosed storage yard for the automotive and construction trade programs

A screened storage and work yards will improve the overall aesthetics of the campus and provide a secure storage for the automotive programs. While it is acknowledged that the trades need "bone yards", there is an educational advantage to providing a secure and organized storage areas.

Improve space utilization

Current space utilization indicates only a 45% seat usage and a 73% classroom/ lab usage. NTC should strive to reduce excessive campus space that is currently underutilized through revised room scheduling, right-sizing of rooms through selective remodeling, and the judicious construction of new square footage to accommodate only facilities that cannot be accommodated within remodeled/ renovated existing space. Note: the college has the one of the lowest gross square feet (GSF) per FYE of all the technical colleges in the MnSCU system. The college is also working to clarify their usage of the facilities, since they do not feel that the numbers adequately reflect the true usage.

Consolidated and expanded storage and maintenance facilities

Create a dedicated storage and receiving area on campus to house equipment, to store maintenance and janitorial materials. Additional short term storage is needed particularly items delivered to the campus such as educational materials and food service items. Dedicated access for trucks will also provide a significant improvement over the existing situation that blocks traffic and is difficult to maneuver for the large trucks. Remote storage in simple garages can also be provided for site maintenance and seasonal equipment.

Identify Key Capital Bonding Projects

The following projects will seek Capital Bonding and are listed in order of desired funding and completion. See "Recommended Projects" under Building Master Plan in this section for additional information.

General Obligation Bond Priority Projects

Workforce Technical and Allied Health Classroom Renovation

With the relocation of the Nursing program to the BSU campus, it was determined to implement a plan for selective renovation of existing space into facilities that support Allied Health programs. It was also determined to complete the renovation of the Automotive and Machining Technology Center along with the integration of the Construction Trades programs. As new technical programs are developed, it was deemed important to provide high-quality flexible space to support developing programs, as well as, to provide space in order to bring technical programs currently in leased space back to campus.

Revenue Bond Priority Projects

There are no Revenue bond projects identified in the master plan for Northwest Technical College

Reduce Asset Preservation Backlogs

The current and five-year Facility Condition Index values are .08 and xx respectively.

- Current Replacement Value (CRV): $ 19,902,000
- Current Backlog: $ 1,660,000
- Current Facilities Condition Index (FCI): .08
- 5-year Backlog: $ 6,034,000
- 5-year Facility Condition Index (FCI): xx

Identify the top HEAPR projects

Campus wide controls	——
Campus wide med. voltage	——
Roof replacement Sattgast	——
Air handling unit replacement	$525,000
Campus wide concrete replacement	——
Condensate return replacement	——
Re-keying exterior doors with electronic locks	$625,000
Upgrade exterior lighting	——
Upgrade kitchen area	$700,000

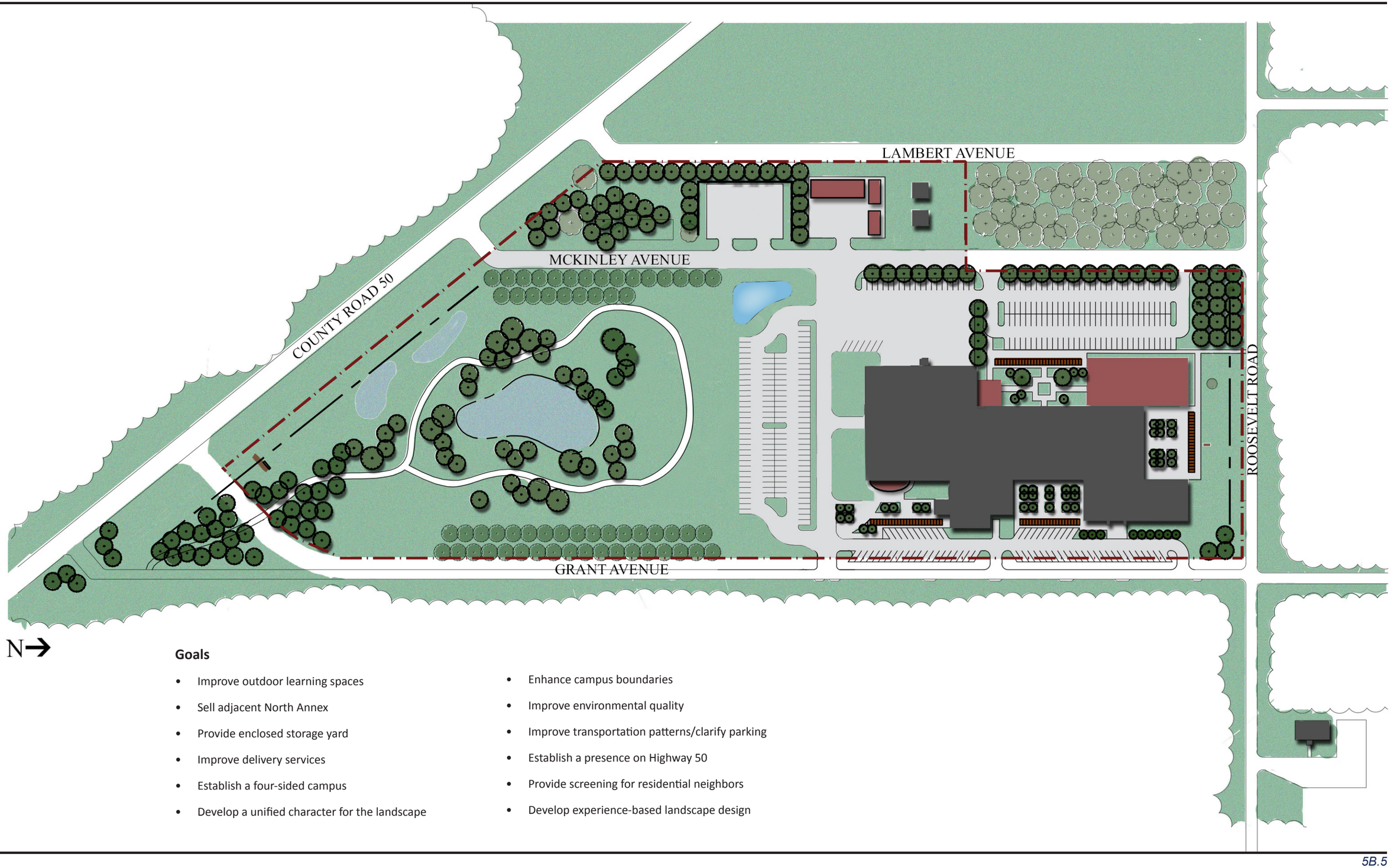
Deferred Maintenance

Due to years of deferred maintenance and temporary fixes, which have turned into long-term problems, the entire building is in need of some type of work. Very little has been done to the building since 1994. At that time, it was determined that Northwest Technical College – Bemidji would collocate with Bemidji State University and the existing campus would be abandoned. Now that the campus will continue to be used for years to come and will not relocate, all of the deferred maintenance and development must be addressed. There are problems with the roof, the HVAC system, the electrical system, asbestos, poor space utilization and a general lack of space. The facility is virtually devoid of any student-oriented amenities.

For these reasons, the facilities master plan calls for renovations to address problems and to improve the space utilization while creating building additions to address some large space deficiencies. By combining the building additions and renovations, new space can be utilized while existing space is renovated, thus keeping the campus operational at all times.

The following deferred maintenance projects are only summaries of the proposed scope:

- Deferred maintenance in the boiler room should be addressed. The existing boiler is aging and has no backup. A study has been conducted regarding the existing mechanical and electrical systems on campus. Based on the results of this study, the existing boiler room should be upgraded or a new boiler room should be built in a better location.
- Repair or replacement of the roof over the north portion of the 1971 classroom addition and the north portion of the original 1965 addition is needed. These will be the first two of five projects that will address the deterioration of the existing roof. The roof over these portions of the building must be repaired prior to any deferred maintenance or renovations on the interior in order to prevent damage to new finishes.
- Life safety, health and accessibility deferred maintenance in the north portion of the 1971 classroom addition and the north portion of the original 1965 building should be addressed. These areas are scheduled to be renovated during Phases 3, 4, 5 and 6, however these phases of construction may not occur for many years. The deferred maintenance must be addressed in the interim.
- The existing electrical service needs replacement or upgrading to meet current standards for life safety and efficiency. This will include replacing the existing transformers with safer pad mounted transformers.
- Repair or replacement of the roof over the high bay trades areas. The roof over these portions of the building must be repaired prior to any deferred maintenance or renovations on the interior in order to prevent damage to new finishes.
- Life safety, health and accessibility deferred maintenance in the trades areas needs to be taken care of. All of the deferred maintenance in these areas will be addressed in conjunction with the renovation and reorganization of the shop spaces in Phase 2.
- The remaining roof areas over the 1985 addition and the original 1965 building should be repaired in conjunction with the Phase 3 renovation work.
- Life safety, health and accessibility deferred maintenance should be taken care of in remaining portions of the 1985 addition and the original 1965 building in conjunction with the Phase 3 renovation work.
- A concrete settlement problem that exists in the 1985 addition should also be addressed.
- Exterior shell and building grounds deferred maintenance should be addressed. A regular schedule should be established for continued regular maintenance.



Goals

- Improve outdoor learning spaces
- Sell adjacent North Annex
- Provide enclosed storage yard
- Improve delivery services
- Establish a four-sided campus
- Develop a unified character for the landscape
- Enhance campus boundaries
- Improve environmental quality
- Improve transportation patterns/clarify parking
- Establish a presence on Highway 50
- Provide screening for residential neighbors
- Develop experience-based landscape design

KEY

A. Library
B. Commons
C. Entry
D. Student Services
E. Classrooms
F. Technology Labs
G. Nursing

CAPITAL IMPROVEMENT

1. Workforce Technology Classroom Renovation
2. Continuing Education/Conference Center Renovation

GRANT FUNDS

3. Welding Lab Renovation

Section 6: Capital Budget Incremental Improvement Program

Project Options Summary

The following sections briefly outline Bemidji State University's and Northwest Technical College's top priority capital improvement projects generated through General Obligation bonds and Revenue Bonds, Higher Education Asset Preservation and Replacement (HEAPR) projects, and campus initiative projects.

Primary Campus Bonding Projects

The following list briefly summarizes the top capital improvement projects that would be funded through General Obligation bonds. They are listed according to institutional rank as determined by Executive Committee and President Richard Hanson. Note: Costs are expressed in 2014 dollars.

Priority One: Academic Learning Center (BSU)

Scope and Purpose: Provide 21st learning environment with full-spectrum classroom facilities, faculty offices and student learning support spaces.

Demolition: Existing Hagg-Sauer (82,000 GSF)

New construction: 28,200 GSF

Renovation: 71,200 GSF in five academic buildings

Sitework: Selective sitework at building perimeter

Funding Required: Design: $1,200,000; Construction: $13,500,000 (Inflation not included)

Status: Revised Pre-design scheduled for 2014; Design funding received in 2014; Construction Funding expected in 2016

Priority Two: Bangsberg Fine Arts Renovation and Lobby Expansion (BSU)

Scope and Purpose: Extensive renovation for improved instruction, performance venues and student learning support; Expanded lobby and sitework for improved access

Demolition: None

New construction: Approximately 5,000 GSF

Renovation: Extensive interior renovation of approximately 25,000 GSF

Funding Required: Extensive interior renovation of approximately 25,000 GSF

Status: Pre-design scheduled for 2018; Design funding expected for 2020; Construction funding expected 2022; Occupancy 2023

Primary Campus Revenue Bonded Projects

Priority One: Student Center (BSU)

Scope and Purpose: Construct state of the art Student Center (66,000 GSF) including student services, activity/ game rooms, meeting rooms, club space, Student Senate facilities, cafes, campus food service, guest quarters and party rooms.

Demolition: 76,800 GSF (Complete demolition of Upper and Lower Hobson Hall); 57,000 GSF (complete demolition of Walnut Hall)

New construction: 60,000 GSF Student Center

Renovation: Minor renovation associated with demolition of Hobson Hall

Sitework: Extensive sitework at sites of demolished Upper and Lower Hobson Hall and Walnut Halls demolition and at perimeter of proposed Student Center

Funding Required: Revenue bonds in the amount of approximately $19.1 million ($225/SF; $1.2 million for sitework)

Status: Pre-design anticipated 2021; Design and construction funding anticipated 2023

Top Five HEAPR Projects

The following list of projects has been identified as the top HEAPR projects for Bemidji State University and Northwest Technical College. These projects meet the standards set forth by the legislature as either preserving or protecting existing campus facilities and are one of the following types: code compliance, including health and safety; meeting the requirements of the Americans with Disabilities Act (ADA); abatement of hazardous materials; access improvement; air-quality improvement; building repairs necessary to preserve the interior and exterior of existing buildings; or renewal to support existing programmatic missions of the campus. Note: Costs are represented in 2012 dollars.

	BSU	NTC
Campus wide controls	$4,250,000	——
Campus wide med. voltage	$2,000,000	——
Roof replacement Sattgast	$1.6m	——
Air handling unit replacement	——	$525,000
Campus wide concrete replacement	$650,000	
Condensate return replacement	$1,650,000	——
Re-keying exterior doors with electronic locks	——	$625,000
Upgrade exterior lighting	$250,000	——
Upgrade kitchen area	——	$700,000

Campus Initiative Projects

The following ranked projects are intended to respond to aging infrastructure, new teaching methodology, evolving instructional technologies, and changing market trends on a special small project basis, and funded biannually by the legislature with special funding. Creative financing using college operating funds, private partnerships, and other public resources should be considered to provide additional support and upgrading for the facilities and academic programs.

Priority One: Welding Lab Renovation (NTC)

Projected costs: $250,000 (grant funded)

Priority Two: STEM Physics Lab Renovation (BSU)

Projected costs: $575,000

Project Options Diagrams

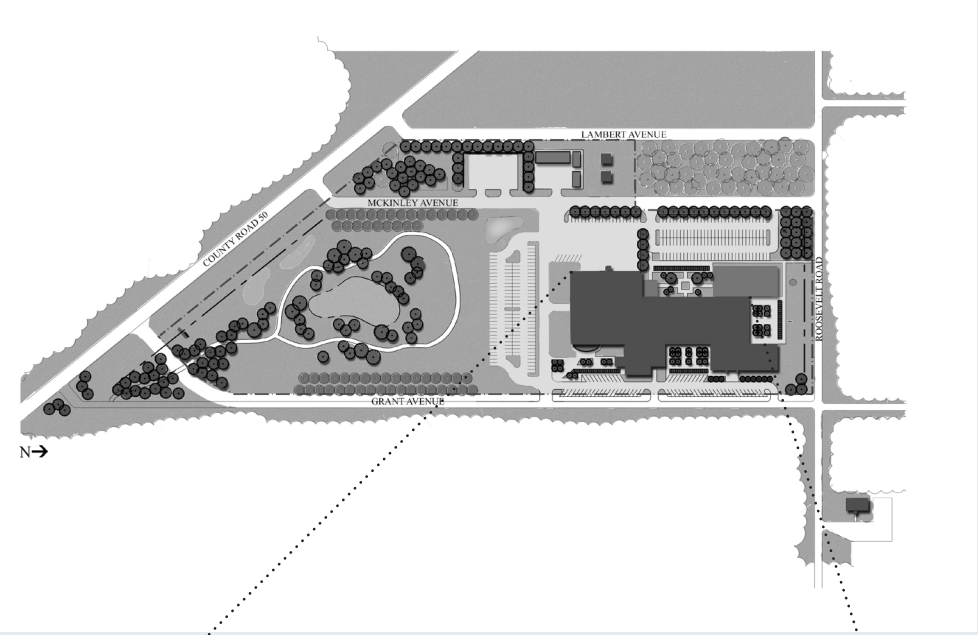
Following are illustrations of the top Capital Improvement Projects (General Obligation and Revenue Bonds) for Bemidji State University and Northwest Technical College.

High Priority General Obligation Bond Projects

Project 1: Academic Learning Center
Project 2: Fine Arts Renovation
Project 3: American Indian Resource Center

High Priority Revenue Bond Projects

Project 4: Student Center



High Priority General Obligation Bond Projects

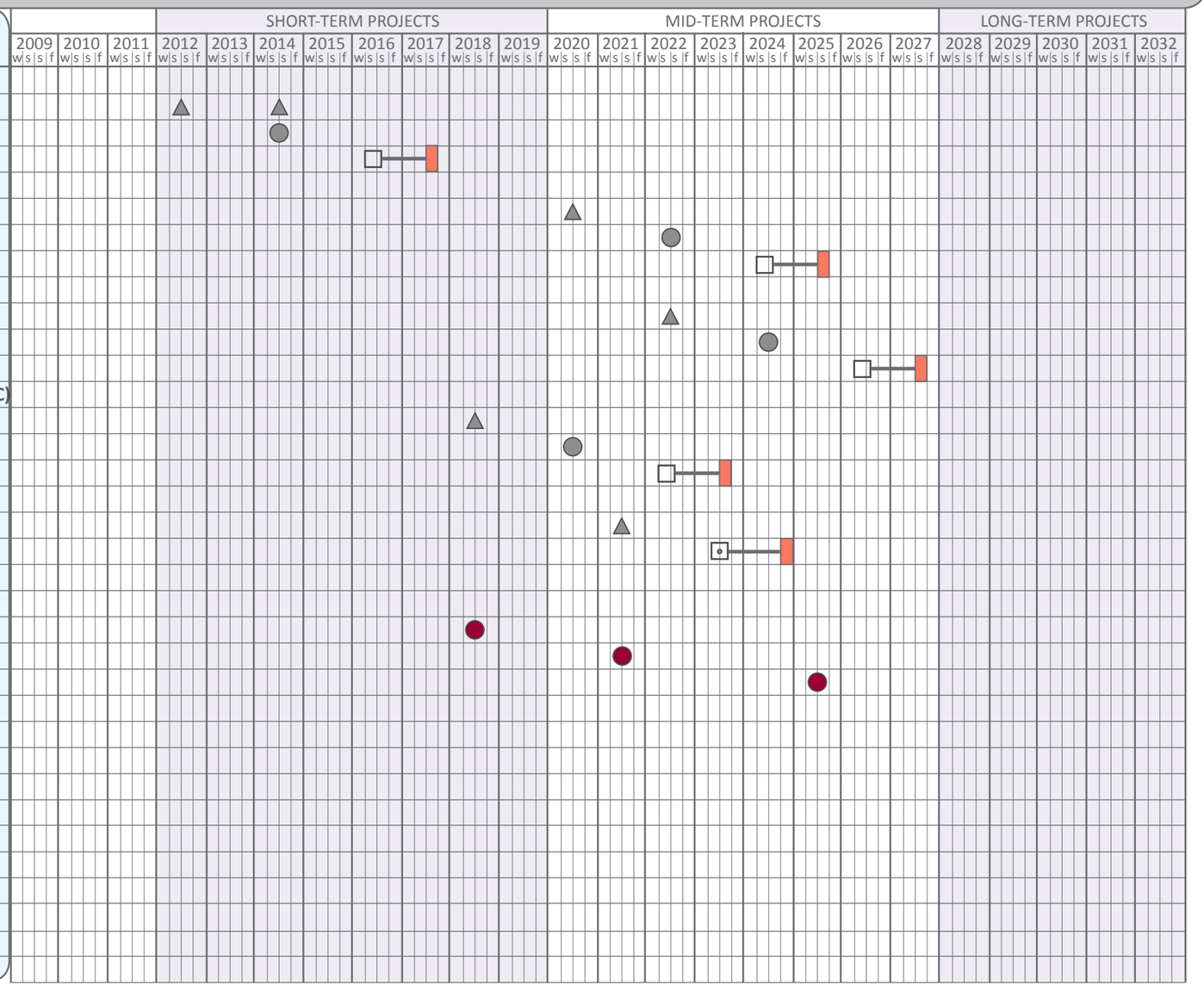
Project 1: Workforce Technology/Classroom Renovation
Project 2: Continuing Education/Student Services Renovation

High Priority Revenue Bond Projects

None

Bemidji State University - Northwest Technical College | *PROPOSED MASTER PLAN SCHEDULE*

GO	RB	UF	Project
			1. Academic Learning Center
		●	1. Predesign
●			2. Design Funding
●			3. Construction Funding/Occupancy
			2. Bangsberg Fine Arts Renovation (BSU)
		●	1. Predesign
●			2. Design Funding
●			3. Construction Funding/Occupancy
			3. American Indian Resource Center (BSU)
		●	1. Predesign
●			2. Design Funding
●			3. Construction Funding/Occupancy
			4. Workforce Technology Classroom Renovation (NTC)
		●	1. Predesign
●			2. Design Funding
●			3. Construction Funding/Occupancy
			A. Student Center (BSU)
		●	1. Predesign
	●		2. Design & Construction Funding
			Property Purchase
		●	1. Birch Lane
		●	2. Neuman Center
		●	3. DNR Property



▲ Pre-Design
● Design Funding
□ Construction Funding
▮ Occupancy
⊡ Design & Construction Funding
● Property Purchase