

Facility Assessment

A professionally developed comprehensive facilities assessment is required. The assessment must identify and evaluate the overall condition of capital facilities under college or university control. The description must include facility age, use patterns, and an assessment of general physical condition. The assessment must specifically identify:

- A. *Summary description of each facility (administrative, classroom, biology, hospital, etc.) according to categories outlined in “net-to-gross ratio guidelines for various building types,” DTMB-Office of Design and Construction Major Project Design Manual, appendix 7. If facility is of more than one “type,” please identify the percentage of each type within a given facility.*

See table on following page.

Facility Description

	Facility											
	Napier Academic		Mendel Center ²⁾		Bertrand Crossing		M-TEC		South Haven		Beckwith Hall	
Building Type	Sq. Ft	% ¹⁾	Sq. Ft	%	Sq. Ft	%	Sq. Ft	%	Sq. Ft	%	Sq. Ft	%
Administrative	4,038	1.33					3,820	8.69	1,970	4.58		
Auditorium	10,088	3.33	5,235	3.77								
Biology	5,005	1.65			1,321	3.85						
Chemistry	3,903	1.29			1,539	4.49						
Classroom	52,121	17.19	2,286	1.65	12,811	37.37	15,698	35.72	14,273	33.18	1,756	2.78%
Courthouse												
Dining Hall	384	0.13										
Dormitory											48,724	77.08%
Engineering												
Garage	6,864	2.26										
Gymnasium	12,528	4.13										
Hospital												
Laboratory	14,595	4.81	478	0.34	3,204	9.35	7,323	16.66	7,323	17.02		
Library	22,308	7.36	159	0.11								
Office	30,014	9.90	179	0.13	1,973	5.76	3,338	7.59	3,338	7.76		
Science	3,252	1.07										
Service	33,630	11.09	131	0.09	2,254	6.57	2,550	5.80	2,112	4.91	1,548	2.45%
Warehouse	6,488	2.14	272	0.20	370	1.08	4,519	10.28	4,519	10.50		

1) Percentage is based on gross square footage of each facility.

2) Please note the Mendel Center is a Conference and Performing Arts Center.

B. Building and/or classroom utilization rates (Percentages of rooms used and percent capacity). Identify building/classroom usage rates for peak (M-F, 10-3), off-peak (M-F, 8-10 am, 3-5 pm), evening, and weekend periods.

Classroom Utilization Rates

The College's routine hours of operation for all facilities are as a minimum 8:00 a.m. – 10:30 p.m., Monday through Thursday; 8:00 a.m. – 5:00 p.m., Friday; and 8:00 a.m. – 12:00 p.m., Saturday.

A 2008 space needs assessment performed by Comprehensive Facilities Planning Inc. and updated in Winter 2009 indicates that primary hours when students will attend classes are 9:00 a.m. – 2:00 p.m., Monday through Friday, and 6:00 p.m. – 10:00 p.m., Monday through Thursday. Data shows that classrooms are used at over 80% of capacity, where 30 hours per week is considered full capacity. When factoring in non-credit activity like community education, tutoring, testing, professional development and club meetings, the use rate increases to nearly 90%; however, station occupancy is 103% indicating that some classrooms are overcrowded.

LMC achieved record enrollment of 4,832 unduplicated head count in Fall 2010 Semester and remained above 4,000 through Fall 2013. Fall 2014 enrollment projections are for unduplicated head count to remain above the 4,000 figure. We continue to aggressively schedule classes at non-primary times. Additional offerings in health care certifications, lineman training, welding certificate and associate degree, energy production and technology, and community education give us reason to expect that our recent enrollment numbers will hold steady in forthcoming years. Additionally, new programming in viticulture and enology, FABLab and a new Baccalaureate program in energy production will drive enrollments higher.

In addition to for-credit classes and directly related college activities, our classrooms and other facilities are routinely used by a variety of programs including Workforce Development training classes and countywide K-12 training programs. These room use and occupancy rates tend to be scheduled in the short term and are therefore not reflected in the figures above, and were not evaluated in the space needs assessment.

Areas with space shortages include: Energy Production and Technology, Enology and Viticulture, Health Sciences, Transitional Studies, Culinary/Hospitality, Athletic/Physical Education/Recreation and Assembly space. We continue to experience a shortage of office space and associated storage; some classroom space has been converted into office space. We continue to rent offsite warehouse storage space to ameliorate the shortage of simple storage space. In addition we are renting office and classroom space from our academic neighbor, Western Michigan University – Southwest Regional Campus. As enrollment grows at our branch campuses, we anticipate additional space needs.

For further details please see **Space Utilization** tab.

C. *Mandated facility standards for specific programs, where applicable (i.e. federal/industry standards for laboratory, animal, or agricultural research facilities, hospitals, use of industrial machinery, etc.).*

There are no mandated facility standards applicable to any Lake Michigan College programs.

D. *Functionality of existing structures and space allocation to program areas served.*

Please see **Space Utilization** tab.

E. *Replacement value of existing facilities (insured value of structure to the extent available).*

Data & Discussion

In March 2002, in accordance with General Accounting Standards Bulletins (GASB) 34 & 35, the College conducted a full and complete audit of facility assets. The building replacement values and machinery and equipment values noted below are based on an August 2014 summation of replacement value by MASB-SEG Property/Casualty Pool.

Facility	Building	Machinery & Equipment	Land & Improvements Thereto	Total
Napier Academic	\$86,180,900	\$43,186,700	\$8,485,087	\$137,852,687
Mendel Center	\$34,065,500	\$2,469,600	\$0	\$36,535,100
Bertrand Crossing	\$6,942,100	\$1,498,800	\$318,874	\$8,759,774
M-TEC	\$8,417,900	\$1,515,500	\$311,464	\$10,244,864
South Haven	\$9,364,300	\$1,489,100	\$1,116,683	\$11,970,083
Beckwith Hall	8,300,000	830,000	\$0	\$9,130,000
Total	\$153,270,700	\$50,989,700	\$10,232,108	\$214,492,508

Land and improvements are based on an earlier evaluation by R.A. Shettler, Inc. adjusted for inflation.

Excluded from the replacement values above are any subsurface structures such as foundations, sanitary system piping, underground wiring, and below ground tanks.

F. Utility system condition (i.e., heating, ventilation, and air conditioning (HVAC), water and sewage, electrical, etc.).

Discussion

The Napier Avenue Campus building was constructed beginning in 1968. The HVAC system is the original steam system with original fire tube boilers. We continue to replace a significant number of the fire tubes in each of the two boilers annually in order to reliably heat the facility with this equipment. One of two redundant electrical centrifugal chillers was replaced in 1998. Condenser water for the chillers is drawn from the man-made lake surrounding the building. One mechanical penthouse was renovated as part of the second phase of our science lab renovation project. This involved a new air handling unit, motors and associated ductwork. All other electrical, mechanical, sanitary and potable water systems are original construction.

The Mendel Center was constructed over a period of years from approximately 1980 through 1990. System boilers and all heating system equipment are original. The centrifugal chiller and cooling tower were replaced in summer of 2002.

The Bertrand Crossing Campus, M-TEC and South Haven Campus facilities were constructed in 1998, 2000 and 2003, respectively. With the exception of the Bertrand Crossing boiler all equipment is original and in excellent operating condition. In 2011, the Bertrand Crossing boiler was replaced with two gas-fired package units to improve energy efficiency and reliability.

The Beckwith Hall residence life facility was constructed in 2014 and opened for the first time to student residents in July 2014.

System-wide routine preventive maintenance is performed and service agreements for major mechanical systems are in place.

For additional details and planned equipment renovations, please see the **Facility Assessment** tab.

G. Facility infrastructure condition (i.e. roads, bridges, parking structures, lots, etc.).

Description

The infrastructure at all sites consists of access roads, parking lots, and pedestrian walkways. The sole exceptions are two small vehicular bridges and a large pedestrian bridge all located at the Napier Avenue Campus.

The emergence of Men's and Women's Soccer in Fall 2013, along with the opening of our first residence facility, Beckwith Hall in Fall 2014 has led to significant revitalization of our west campus area. Improvements in roadways, utility infrastructure, lighting, wayfinding signage, technology and emergency/safety equipment upgrades have all been made within the past year.

As noted in section F. above, the Bertrand Crossing Campus, M-TEC and South Haven Campus facilities have been constructed within the past fifteen years and the infrastructure is in excellent condition. Preventive maintenance of the infrastructure is integrated into the **Facility Assessment** section of this report.

The College Napier Academic Building, Mendel Center and Beckwith Hall share common infrastructure. Two of three parking lots have been replaced, the Staff/Student lot in 1998, and the Mendel South lot in 2002. The Mendel North lot was resurfaced in Summer 2004, and a significant number of large surface cracks were repaired in Summer 2012; however, the base is seriously degraded and the lot will need to be replaced within the next five years. The Mendel South lot was resurfaced during Summer 2010. The Staff/Student lot was resurfaced in 2012 and the majority of the College primary access roads were resurfaced that same summer. The Staff portion of the Staff/Student lot has experienced significant degradation due to poor subsurface. Partial repairs were completed in Summer 2014 with the goal of full replacement including subsurface and drainage in Summer 2015.

Preventive maintenance of the lots is integrated into the **Facility Assessment** section of this report.

A new pedestrian plaza was constructed in 2012. This reduces the amount of vehicular and pedestrian interface on campus. In general the pedestrian walkways are original infrastructure and there has been some degradation of the surface. Where necessary, portions of the walkways continue to be replaced on an annual basis. Additional repairs, resurfacing and replacements are scheduled in the **Facility Assessment**.

The vehicular and pedestrian bridges located at the Napier Avenue Campus are original construction. They are in good condition.

Please refer to the **Facility Assessment** tab for further details.

H. Adequacy of existing utilities and infrastructures system to current and 5-year project programmatic needs.

Discussion

Our #1 Capital Outlay Project Request proposes replacement of our energy infrastructure and extending the classroom technology upgrades to the remainder of Napier Avenue Academic facility. This is our highest infrastructure priority.

In conjunction with the improvements made in our west campus area over the past year we expect the emergence of residence life to continue to drive facility and infrastructure expansion improvements in this area of our college.

On the northeast corner of the Napier Avenue Campus we are planning an Enology/Viticulture/Culinary facility. This area will also require similar extension of utilities and infrastructure support. A temporary Enology and Viticulture Center is housed in the Mendel

Center.

Within the Napier Academic Building we have captured existing space and renovated it into a new student center, the Hawk's Nest. The center overlooks a green roof plaza that is over 40 years old and now requires renovation to refresh the look of this student space while maintaining the integrity of the green roof. Some improvements on the plaza were made in Summer 2014, but in the long term more extensive renovation will be required to maintain the plaza.

Please see the following sections of this submittal for additional information: **Facility Assessment, Space Utilization, Master Plan, and Information Technology Plan.**

I. Does the institution have an enterprise-wide energy plan? What are its goals? Have energy audits been completed on all facilities? If not, what is the plan/timetable for completing such audits?

All of our energy planning is grounded in Lake Michigan College's over four decade history of sustainability embodied in our original green roof on our plaza and the use of the lake surrounding our facility as the cooling source for our HVAC plant.

We have completed several energy audits with a variety of firms and consultants including Honeywell Energy Services, Progressive Architecture & Engineering Services and VFA as part of our facilities condition assessment. In addition we have had and continue to have explorative discussions on performance contracting with several energy services firms. In conjunction with our master planning effort we also developed an energy master plan. Finally we conducted a multi-disciplinary energy planning charrette in which we invited several architects, engineers and contractors to a daylong planning discussion on the direction Lake Michigan College would take in energy planning. The results of these planning efforts have been built into our facilities condition assessment and into our five-year capital plan.

As noted in our FY '16 Capital Outlay Project Request, over the past five years Lake Michigan College has invested over \$20M in physical plan upgrades, enhancements and expansions. Each of these projects included energy efficiency and sustainability elements including energy efficient roofing, package-boilers and window systems, and low-volume flush units in any restroom upgrades completed to date. Heat recovery systems and acuity monitors have been installed in our new science lab spaces. Collegewide we have replaced incandescent fixtures with CFL's where possible and are installing LED lighting units when lighting upgrades or replacements are needed. We are continuing to expand our building control system to cover more and more of our facilities. Finally, hybrid vehicles were purchased for our College pool.

While significant progress has been made, our most critical energy improvement, the replacement of our 45+ year old primary heating and cooling plant and distributions systems in our Napier Academic Building is encompassed in our #1 FY'16 Capital Outlay Project Request.

J. Land owned by the institution, and include a determination of whether capacity exists for future development, additional acquisitions are needed to meet future demands, or surplus land can be conveyed for a different purpose.

Property Listing

The College owns the following land, which houses academic facilities.

<u>Address</u>	<u>City</u>	<u>State</u>	<u>Facility</u>	<u>Acreage</u>
2755 E. Napier Avenue	Benton Harbor	Michigan	Napier, Beckwith & Mendel	263.00 acres
1905 Foundation Drive	Niles	Michigan	Bertrand Crossing Campus	19.49 acres
400 Klock Rd.	Benton Harbor	Michigan	M-TEC	10.28 acres
125 Veterans Blvd.	South Haven	Michigan	Van Buren	22.37 acres

In addition, our Bertrand Crossing and South Haven Campus sites each allow for expansion by at least two additional facilities.

Lake Michigan College has also acquired additional properties and associated acreage to protect its perimeter in anticipation of future development. These include:

<u>Address</u>	<u>City</u>	<u>State</u>	<u>Facility</u>	<u>Acreage</u>
1442 Yore Avenue	Benton Harbor	Michigan	<i>none</i>	2.06 acres
1486 Yore Avenue	Benton Harbor	Michigan	<i>none</i>	2.06 acres
1508 Yore Avenue	Benton Harbor	Michigan	<i>none</i>	1.98 acres
2840 Territorial	Benton Harbor	Michigan	<i>none</i>	23.80 acres

Please note the Yore Avenue properties listed above are adjacent to the Napier Avenue property.

Discussion

At the Napier Avenue Campus/Mendel Center, approximately 109 acres are being maintained, leaving 154 acres open, some of which is available for development. The College is planning to use a portion of this for development of its enology, viticulture and culinary programs and a technology center. Portions of the remaining acreage are maintained in natural forest, wetlands, and prairie grass ecosystems, and are used for instructional programming (see enclosed Master Plan).

At the Bertrand Crossing Campus, approximately 5 acres are maintained, and as noted above, sufficient property exists to support future development. In 2003, we sold 0.51 acres to the City of Niles for the erection of a water tower on the southeast corner of our property.

Our South Haven Campus includes land for at least two additional facilities.

The M-TEC property is in part natural wetlands unavailable for future development. The site is very compact, and parking is limited. The M-TEC is surrounded by the Harbor Shores Golf Course development project, making expansion at this site difficult. Program development such

as the College's expanding energy program requires repurposing of existing space or an additional facility.

In summary, with the exception of M-TEC, where we may need assistance in providing additional space, we have adequately planned for and acquired land for our future development needs.

K. What portions of existing building, if any, are currently obligated to the State Building Authority and when are these State Building Authority leases are set to expire?

Data

<u>Facility</u>	<u>Obligated in:</u>	<u>Expires in:</u>
South Haven Campus	2003	2043