FY 2025-2029 5-Yr Capital Plan

October 24, 2023

Contents

I. Mission Statement

Together we empower people and communities to thrive through education, innovation, and experiences.

Goals

Academic Excellence	Student Success	Employee Experience	Community Impact
Provide an educational experience that prepares our students to excel academically and to meet the talent demands of the community.	*Create holistic support so our students are equipped to reach their goals in an inclusive and caring environment.*	*Build a trusting, collaborative, and inclusive culture for our college community.*	*Propel positive change in our community by nurturing relationships, promoting cultural connectivity, and driving civic engagement through our programs, services, and experiences.*

In the 2022/23 Strategic Planning work redefined the LMC strategic pillars – Academic Excellence, Student Success, Employee Experience, and Community Impact - and their associated goals. Through committee work measurable objectives using the SMART approach (Specific, Measurable, Achievable, Relevant, Time-bound) were formulated for each goal. More information will be made available on the public website in late 2023, including the comprehensive Strategic Plan.

Our guiding principles:

Accountability: We hold ourselves accountable to our students, communities, professional standards, and each other.

Culture: We ensure our actions support the whole person through compassion and kindness.

Diversity: We promote an inclusive environment by thoughtfully and intentionally engaging diversity in all its forms.

Integrity: We conduct ourselves with integrity in all matters.

Quality: We provide the highest quality education and experiences possible.

Service: We strive to meet the needs of our students, employees, and communities.

Lake Michigan College is a two-year, accredited, nonprofit community college in southwest Michigan. Locations:

A. *BENTON HARBOR CAMPUS*

Situated on former farmland in Benton Township between US 31 and I 94, the Benton Harbor Campus on Napier Avenue was completed in 1976. The original academic building, now joined by Mendel Center, Hanson Technology Center, Todd Center, Welch Center, and the Beckwith Residence Hall.

B. *BERTRAND INNOVATION CENTER (Formally the Niles Campus)*

The Bertrand Innovation Center is located just off US 31 in the Bertrand Crossing Industrial Park. The Center serves residents of South Berrien County including Niles, Buchanan and New Buffalo, Cass County and Northern Indiana. In collaboration with the Berrien Regional Educational Service Agency (Berrien RESA), there are several Lake Michigan College degree, certificate and short-term training programs.

C. *SOUTH HAVEN CAMPUS*

Lake Michigan College's South Haven Campus provides local higher education opportunity to city residents at in-district tuition rates. The campus on Veterans Boulevard is also conveniently located for other residents of Van Buren County.

D. *ALLEGAN TECH CENTER*

The Allegan Tech Center hosts several Lake Michigan College degree, certificate and short-term training programs.

Programs for All Learners:

Lake Michigan College offers over 80 different academic programs, including career education, transfer programs, part-time and full-time options and online learning.

Even before students graduate from high school, LMC has partnered with local school systems to offer college-level coursework to qualified students. With Early College, students earn both high school and college credit for courses, saving families thousands of dollars in college tuition.

Several programs at LMC are designed to assist local residents who have had a hard time getting to college. The Educational Opportunity Center can help anyone over 19 to get into any college, not just LMC. Upward Bound offers help to students who are struggling at Lake Michigan College. And Start to Finish provides support to students beginning when they're in high school, all the way through their college career at LMC.

II. Instructional Programming

A. Description of existing academic programs and projected programming changes during the next 5 years, in so far as academic programs are affected by specific structural considerations (i.e., laboratories, classrooms, current and future distance learning initiatives, etc.)

The College offers 52 programs of study at the associate degree level and 28 certificate programs. Please see the appendix for additional information: **Registrar's Official Program Major Listing.**

Existing Academic Programs

The College's credit academic programs are organized under three instructional divisions (Arts and Sciences Education, Career and Workforce Education, and Health Sciences Education) that serve campuses in Benton Harbor and South Haven. The South Haven campus is approximately a half hour drive from the Benton Harbor Campus and serves the northern portion of LMC's district.

The Arts and Sciences Education Division consists of five departments:

- Mathematics
- Natural Sciences, Exercise Science & Wellness
- Rhetoric, Communication, and World Languages
- Social Sciences, Humanities, and Education
- Visual and Performing Arts

The Career and Workforce Education Division is comprised of three departments:

- Advanced Manufacturing and Computer Information Systems
- Business, Criminal Justice, Culinary, and Hospitality
- Wine and Viticulture Technology

The Health Sciences Education Division is comprised of seven departments:

- Allied Health -
    - Certified Nurse Aide (CNA)
    - Medical Assisting; Pharmacy Technician
    - Phlebotomy
- Dental Assisting
- Nursing
- Physical Therapist Assistant (PTA)
- Radiologic Technology
- Sonography

- Surgical Technology
    - Sterile Processing Technician

Projected Programming Needs for Next 5 Years

The need for new programs and academic support services are identified in a variety of ways. In addition to labor market analyses and environmental scanning conducted during the College's regular strategic planning activities, advisory committees routinely assist the College in identifying regional employment needs and trends. Academic Deans and Faculty also play a key role in proposing new programming by staying abreast of developments in their fields of expertise, helping to assure that students are prepared for employment and transfer opportunities.

Emerging and Projected Programming

The following academic and support programs are emerging, proposed, or expected to undergo feasibility studies within the next five years at LMC:

Academic Program	Requires Structural Needs	Distance Learning Component Included
Agriculture Program(s)	X	X
Brewing	X	X
Cannabis Testing	X	X
Cyber Security	X	X
Drone Piloting	X	X
Exercise Science	X	X
Marine Maintenance Technician	X	X
Music Technology	X	X
Physical Therapy Assistant	X	X
Police Academy	X	X
Public Health	X	X
Registered Behavior Technician Cert.		X
Respiratory Therapy	X	X
Sterile Processor Technician	X	X
Virtual and Augmented Learning	X	X

B. Unique characteristics of each institution's academic mission for Community Colleges: 2-yr degree and certificated technical/vocational training, workforce development activities, adult education focus, continuing or lifelong educational programming, partnerships with intermediate school district(s), community activities; geographic service delivery area(s), articulation agreements or partnerships with four-year institutions, etc.

- The College district consists of Berrien County and contiguous Covert Township and South Haven in neighboring Van Buren County. Located in the southwest corner of the State, Berrien County has a population of 156,813 and a workforce of 75,498 (Berriencounty.org and Michigan Labor Market Information, milmi.org). The three largest cities include Benton Harbor, Niles, and St. Joseph.
- Lake Michigan College's primary educational sites include the Benton Harbor Campus and a branch campus in South Haven. Plans are being implemented to offer unique programming in South Haven to better meet the needs of those regions. South Haven is staffed with an Associate Dean of Regional Campuses, as well as student services personnel. Both of these sites provide convenient access to higher education with a wide variety of programming options.
- Lake Michigan College has donated the former Niles Campus building to the Berrien Regional Educational Service Agency (Berrien RESA). The newly branded Bertrand Innovation Center will still house LMC classes in the area, and the College and Berrien RESA have formed the Berrien Talent Collaborative with the Greater Niles Chamber of Commerce and Southwest Michigan Regional Chamber of Commerce to facilitate technical training along with pre-apprenticeship and apprenticeship programming. This unique partnership will help build talent supply chains for employers in Southwest Michigan.
- In addition, the College has extended its programming to serve Allegan County, at their request. Through the Allegan County Area Technical & Education Center, LMC delivers high quality, career-focused programming through its Early Middle College program. Allegan County signed a formal agreement with LMC in 2013 that acknowledges this on-going relationship and the benefits it provides for its rural communities. The Allegan agreement also provides for adult credit classes supported by advising and other student services provided by the South Haven Campus.
- LMC operates a robust and well-established Early College program, which accounts for approximately 28% of its total enrollment. For qualified high school

students, college credit can be earned by enrolling in direct credit courses (taught by credentialed high school teachers at high school sites) or by enrolling in dual enrollment courses (taught by LMC faculty at a LMC location). LMC also has 5th year middle college programs in Berrien, Van Buren, and Allegan counties, which provide opportunities for high school students to defer their high school graduation for one year so they can earn both a high school diploma and an associate degree or certificate at the conclusion of their 5th year of high school. On average, LMC serves over 1,000 early college students annually in partnership with over 40 K-12 districts and regional ISDs.

- Located on-site at the Benton Harbor Campus, Siena Heights University (SHU) has partnered with Lake Michigan College for over thirty years to offer degree completion programs on the Benton Harbor Campus. The LMC/SHU partnership was the first of its kind in Michigan when it started in 1982. Currently six bachelor's degree programs and four online master's degree programs are available to LMC students and area residents. A unique 3 + 1 academic model allows students to transfer up to 90 credit hours from LMC into their baccalaureate degree with SHU, saving students significant tuition expense. With a focus on meeting the needs of the adult learner, Siena Heights University is an important and valuable partner in raising college education attainment rates in southwest Michigan.
- The College has also expanded our university partnerships through an on-campus University Center that has increased baccalaureate completion program options for students. We have new partnership agreements with Davenport University and Grand Valley State University and are actively seeking additional partnerships that meet the needs of our students and the communities we serve.
- LMC is an active participant in the MiTransfer Pathways project. Led by the Michigan Center for Student Success, this statewide initiative aims to build multi-institutional associate to bachelor's degree transfer pathways in 12 program areas, including in some of the largest majors in Michigan.
- A large part of LMC's service area is comprised of a rural and economically disadvantaged population. The Educational Opportunity Center (EOC) at Lake Michigan College serves a minimum of 1,097 participants each year. The EOC receives funding from the U.S. Department of Education, and serves individuals in the Michigan counties of Berrien, Cass, Van Buren, and Allegan, and the Indiana counties of La Porte and St. Joseph. The EOC provides information and assistance to adults (19 years and above) who are interested in furthering their education. Services to eligible participants include academic tutoring (in preparation for GED

or college assessment testing), career assessment, assistance completing applications toward college entrance, referrals to appropriate adult education centers, and/or community assistance agencies. The goal of the EOC program is to increase the number of adult participants who enroll in postsecondary education institutions.

- The Hanson Technology Center, located on the Benton Harbor campus, opened in August 2016 and houses our Advanced Manufacturing programs. The building is designed with new, sustainable energy-efficient systems and is used as a learning tool for students, demonstrating the use of natural building materials and sustainable methods. The building has five classrooms attached to four labs (a Fab Lab, welding lab, and two advanced manufacturing labs), collaboration spaces, and a simulation classroom. The simulation classroom is a state-of-the-art classroom complete with 6'9" x 16' touchscreen and seating for up to 46.
- The Fab Lab—which is available to students, employees, and the community—is equipped with laser cutters, vinyl cutters, 3D printers, sewing machines, a woodshop with a CNC router, and various pieces of portable equipment to handle a variety of projects. A design center is available to encourage creativity, entrepreneurialism, and collaboration.
- The Start-to-Finish program, which launched in 2012, provides intensive support services for Benton Harbor High School students, including advising, mentoring, supplemental instruction, life barrier problem-solving, and study skill development.
- The Student Support Services program, made possible through a five-year U.S. Department of Education grant, was designed to help 200 students overcome class, social, academic, and cultural barriers to higher education. The program serves first-generation, low-income students and students with a disability and helps ensure that they earn a certificate or associate degree; or earn a certificate or associate degree and transfer to a four-year institution to complete a baccalaureate degree or higher.
- The College partners with Benton Harbor Area Schools to serve 78 high school students in the Upward Bound Program. The Upward Bound Program focuses on preparing high school students to graduate from high school, enroll in, and complete a postsecondary credential.
- In 2015, Lake Michigan College joined the Guided Pathways Institute offered by the Michigan Center for Student Success. The Guided Pathways initiative helps

community colleges create clearer pathways for students from the beginning of their educational journey to degree completion and/or transfer.

- In 2017, the College was awarded a Title III Grant to continue and support our Guided Pathways work. This five-year, $3 million grant was a pivotal opportunity for the College to focus efforts on improving student success. Through the Guided Pathways process the college developed pathways for all occupational programs that consists of a clear sequence of coursework and/or other credentials that support skill attainment and employment.
- The Welch Center opened August 2019 to support our Wine and Viticulture Technology Program, which is the only teaching winery in the Midwest.
- The Lake Michigan College Mendel Center is the largest performing arts center in the region and annually hosts touring professional entertainments, community shows, conference and event services, extended education programs, art displays exhibitions, and related academic programs. The addition of a recording studio and music technology lab, as well as the relocation of the scene shop continue to stimulate growth in the music and theatre programs. Ongoing improvements to theatrical lighting and acoustics make the spaces more aesthetically pleasing for both patrons and performers.

C. Other planned initiatives which may impact facilities usage.

Future programming at our South Haven campus will require significant facility alterations. Instructional technology at the South Haven campus was upgraded in a few spaces in 2021, but additional upgrades are planned for new program areas. Renovation of existing space at the South Haven Campus will provide a Physical Therapist Assistant (PTA) program. This project will develop a modern classroom and active lab for delivery of the PTA program. Other planned initiatives will include updating the science lab and renovating classrooms to support new programs in Brewing, eSports, and Drone Piloting. Through a collaboration with a Michigan State University grant, a hoophouse will be constructed on the property that will support the local migrant workforce and serve as a venue to launch a new agriculture program in the community. Deferred maintenance for the campus will be addressed as a part of these future capital projects.

As of Fall 2021, the Dental Assisting program runs exclusively from the Niles campus, now the Bertrand Innovation Center. The space vacated by the Dental Assisting

program at the Benton Harbor campus will be renovated to serve the needs of an expanding Health Sciences program, Diagnostic Medical Sonography.

Starting in the Fall of 2023, the college will develop an Extended Education department which will include certificate programs, community-based education, non-credit education courses, training for business/industry, and summer/other camps.

D. Demonstration of economic development impact of current/future programs

The economic impact of current and projected academic programming at Lake Michigan College is substantial and critical to the growth of southwest Michigan's regional economy.

Current and projected programming described in this document is designed to create a workforce prepared to meet the needs of the existing employers as well as to attract new jobs, businesses, and industries to our area. Studies have repeatedly revealed the availability of an educated workforce as a primary factor in the decisions of employers to create jobs or to relocate and/or expand their business or service organizations. Highly qualified LMC graduates in advanced manufacturing, computer information systems, wine and viticulture, hospitality and culinary, health sciences, and STEM fields are critically needed to expand the economic base of southwest Michigan.

III. Staffing and Enrollment

A. Description of current full- and part-time student enrollment levels by academic program and define how the programs are accessed by the student (i.e., main or satellite campus instruction, collaboration efforts with other institutions, Internet or distance learning, etc.)

Student Body Composition – Fall 2023 Census Unduplicated Headcount

Below is a comprehensive list of programs at the College and their enrollment status for the Fall 2023 semester by major type. Based those numbers, there were 2,919 total students with 2,115 part-time and 804 full-time. The College offers courses using a variety of delivery modalities to meet the unique needs of our students. All courses, regardless of how they are delivered, may require course assignments to be completed online. The modalities include Face-to-Face, Flexible Learning Environment (FLE), Hybrid, Online, and Remote. Definitions of each modality are provided below.

Major	Full-Time	Part-Time	Summary
Accounting	8	38	46
Applications Development	9	20	29
Applied Science - General	13	8	21
Art	12	8	20
Associate in General Studies	104	125	229
Automation Engineering	3	4	7
Biology	15	15	30
Business	50	54	104
Business Administration	53	43	96
Casino Management	0	5	5
Casino Management - Cert	0	1	1
Chemistry	0	3	3
Child Development	4	13	17
Cisco - Certification	2	1	3
Communication	8	8	16
Criminal Justice	21	22	43
Culinary Management	15	9	24
Cybersecurity	14	9	23
Cybersecurity - Certification	0	6	6
Diagnostic Medical Sonography	18	16	34
Electrical Distribution	4	8	12
Engineering Technology	5	8	13
English	7	7	14

Esports Production	1	2	3
Exercise Science	0	3	3
General Technology	1	6	7
Graphic Design	18	8	26
Graphic Design - Level 1 CERT	0	1	1
Health Science	10	21	31
History	3	3	6
Hospitality Management	0	1	1
Information Tech - Level 1 CERT	1	6	7
Machine Tool - Level 1 CERT	0	21	21
Machine Tool Technology	4	28	32
Machine Tool Technology - Certification	0	7	7
Manu Production - Level 1 CERT	0	1	1
Mathematics	1	1	2
Mechatronics Technology - Level 1 CERT	0	1	1
Mechatronics Technology	4	5	9
Medical Assisting	10	11	21
Music	6	5	11
Networking	9	10	19
Nursing-RN	1	99	100
Personal Interest	14	821	835
Pharmacy Technician	0	1	1
Pharmacy Technician - Certification	0	2	2
Philosophy	1	1	2
Phlebotomy Tech - Level 1 CERT	1	7	8
Physical Education & Wellness	1	1	2
Physical Science	2	1	3
Physics	1	0	1
Political Science	4	3	7
Pre-Diagnostic Medical Sonography	17	69	86
Pre-Engineering	15	11	26
Pre-Nursing (Registered)	51	126	177
Pre-Radiologic Technology	10	26	36
Psychology	31	29	60
Radiological Technology	25	18	43
Reg. Behavior Tech - Level 1 CERT	0	1	1
Science-General	51	39	90
Skilled Trades Technology	2	32	34
Skilled Trades Technology-Cert	0	2	2
Small Business Mgmt-Level 1 CERT	0	1	1
Sociology/Pre-Social Work	13	22	35
Spanish Certification	0	2	2
Surgical Technology	0	4	4
Teacher Education	20	22	42
Theatre	5	5	10

Undecided (Arts - Transfer)	87	162	249
Web Development - Level 1 CERT	0	1	1
Welding Prod Tech-Level 1 CERT	0	4	4
Welding Production Technology	12	13	25
Wine & Viticulture Technology	6	13	19
World Languages	1	5	6
Summary	**804**	**2,115**	**2,919**

Modality Definitions

Face-to-Face: All course sessions are held at scheduled times and meet in person.

Flexible Learning Environment (FLE): Choose to attend each scheduled course session in-person or remotely via Zoom or watch recorded course sessions online.

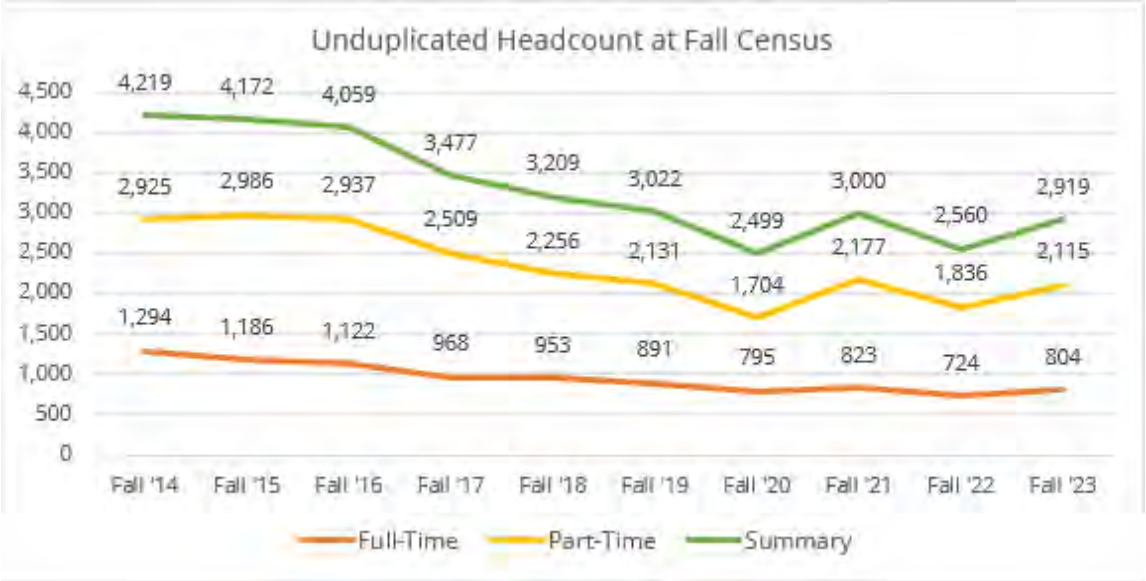
Hybrid: Courses may include a combination of face-to-face, online, and/or remote instruction. Some course sessions are at scheduled times.

Online: Complete the course entirely online with no scheduled course sessions required.

Remote: All course sessions are held at scheduled times and meet remotely via Zoom.

B. Evaluation of enrollment patterns over the last five years.

LMC achieved a record enrollment of 4,832 unduplicated head count in the Fall 2010 Semester and has remained above 4,000 until Fall 2017. Our enrollments are still down from this peak high and particularly down in Fall 2020 when the unduplicated head count was 2,611 at the end of the semester. Due to our Free Tuition initiative in Fall 2021, we saw a 27% increase to an unduplicated head count of 3,326 at the end of the semester. Additional in-person offerings, new programs and the Futures for Frontliners program supported the higher enrollments. In Fall 2022 there was a decline when the Free Tuition initiative was not offered. Currently enrollment is more in line with enrollment numbers prior to the Free Tuition initiative and prior to the pandemic. The table below shows the enrollment patterns based on unduplicated headcount at the fall census, which is taken mid-September after the last day to drop classes for the semester.



	Fall '14	Fall '15	Fall '16	Fall '17	Fall '18	Fall '19	Fall '20	Fall '21	Fall '22	Fall '23
Full-Time	1,294	1,186	1,122	968	953	891	795	823	724	804
Part-Time	2,925	2,986	2,937	2,509	2,256	2,131	1,704	2,177	1,836	2,115
Summary	4,219	4,172	4,059	3,477	3,209	3,022	2,499	3,000	2,560	2,919

A number of factors have been identified which have positively impacted overall enrollment. At a high level these factors have been identified as:

1) Changes in the unemployment rates and the new jobs trends.
2) Ending of the pandemic and students recovering and returning to in person classes.
3) The addition of a Dean of Diversity, Equity and Inclusion to help the College embrace diversity on multiple levels; therefore, changing and impacting enrollments.
4) How we work, where we work, and the overall experience and expectation of work has changed the way students interpret the future.

Specifically, there are many initiatives that are also influencing enrollment:

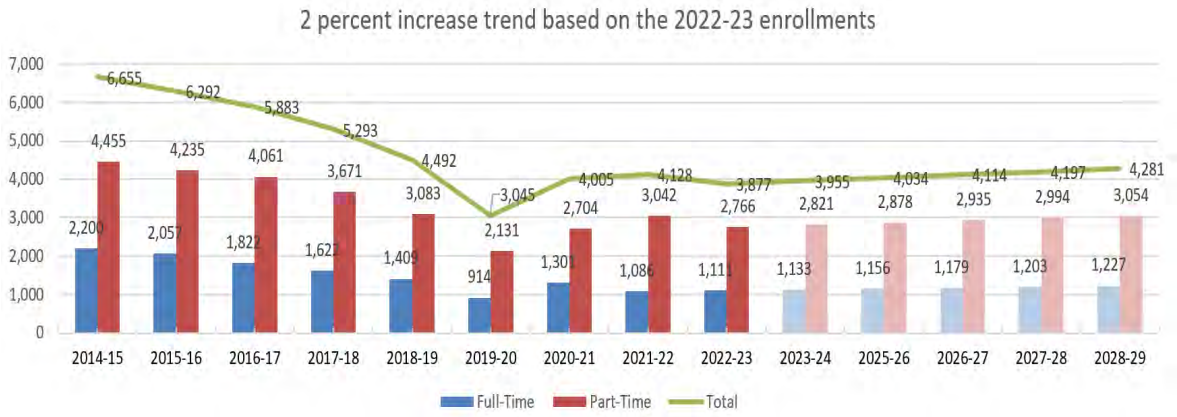
- New programs have been developed in Marine Maintenance, Esports Management, CIS, Manufacturing Technology, Culinary Management, Health Sciences, and Wine and Viticulture. Current programs such as Welding have been expanded to full certificate and degree programs.

- College recruiters visit all district high schools each year and provide multiple formats for personal and group tours to Lake Michigan College.
- The College has strong partnerships with area business and industry, which depend on the College for a skilled workforce.
- Partnerships in Berrien, Van Buren and Allegan Counties offer robust Early / Middle College programs.
- The College provides dual enrollment, direct credit, and academies in cooperation with area high schools.
- The College provides outreach services to parents and prospective students including informational events held at all campuses on the following topics:
    - Financial Aid Workshops,
    - Dual Enrollment Orientation Sessions for Students and Parents,
    - Onsite registration and advising at several area high schools each spring,
    - Participation in K-12 guidance and administrative meetings throughout the year,
    - Michigan Regional College Night,
    - Multiple college Visit Nights, Saturday open houses, and over 16 high school group/class on-campus visits a year.

C. Projection of enrollment patterns over the next five years (including distance learning initiatives)

The region's overall populations are projected to decline over the next several years and low unemployment rates will continue to negatively impact community college enrollment. Lake Michigan College projects a slight (2 to 5 percent) enrollment increase in 2023-25 and then several years of relatively flat enrollment. Below is a general 2% growth trend graph is shown for the future unduplicated fiscal year headcount through 2029.

The College will continue to focus on four areas for enrollment: (1) greater influence on the current high school market, (2) unique academic programs not offered by area competitors, (3) increasing flexible and distance learning course and program options, and (4) increasing persistence and retention rates. The College is committed to retaining the students who already attend a given semester. Early College Program numbers will continue to be strong and represents approximately 30% of the overall College enrollment.



ID	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2025-26	2026-27	2027-28	2028-29
Full-Time	2,057	1,822	1,622	1,409	914	1,301	1,086	1,111	1,133	1,156	1,179	1,203	1,227
Part-Time	4,235	4,061	3,671	3,083	2,131	2,704	3,042	2,766	2,821	2,878	2,935	2,994	3,054
Total	6,292	5,883	5,293	4,492	3,045	4,005	4,128	3,877	3,955	4,034	4,114	4,197	4,281

D. *Instructional staff/student and administrative staff/student ratios for major academic programs or colleges.*

Unduplicated headcount for Fall 2023 is 2,919. There are 405 full and part-time employees at the College including 58 full-time and 102 part-time faculty (94 of which are contracted services through Edustaff), 142 full-time administrators/staff, 27 part-time administrators/staff, 24 part-time contracted staff, and 52 student workers. Within the total number of employees there are 15 full-time and 2 part-time facilities personnel.

Based on Fall 2023 unduplicated headcount and full-time equivalency for both students and employees, the current student to faculty ratio is 16 to 1 and the ratio of students to administrative staff is 10 to 1.

E. *Projection of future staffing needs based on 5-year enrollment estimates and future programming changes.*

Currently, additional staffing based on 5-year enrollment estimates and future programming changes is limited. To support growing programs, 3 additional full-time Faculty FTEs are also anticipated. Currently Facilities has 4 open positions, in addition to filling the positions at least 2 additional FTEs are anticipated due to the physical changes to the College, including a net increase in square footage, increased

programming, and preventative maintenance.

F. Current average class size and projected average class size based on institution's mission and planned programming changes.

The College strives to maintain small class sizes to support our college-wide goals of academic excellence and student success. Planned programming changes are not expected to significantly impact average class size. Currently for Fall of 2023 the average class size is 13.

IV. Facility Assessment

Summary: In 2021 Lake Michigan College engaged Progressive AE for professional services to provide a new comprehensive facility assessment for all three campuses, including eight buildings. The assessment work has assisted the College to uncover deferred needs for long term planning as the aging infrastructure and systems approach end-of-useful-life. In addition to the written report included in the Appendix, the assessment included a robust web-based database of all deficiency observations and equipment and system renewals. Since the issuance in 2021, the College has addressed over $625,000 of estimated value of assessment work through routine capital projects and general operational maintenance. The College continues to use the database to plan and budget work, organize 10-year capital outlay schedules, close-out corrections, and add new observations and renewal projects as needed.

The updated summary shown in Table 1 indicates that Lake Michigan College facilities overall continue to be in good condition. Based on 2023 requirements the facility condition index (FCI) is .02, where anything below .05 is considered good condition. The facilities are well maintained and the College's investment in new facilities and major upgrades is reflected in the relatively low FCI values. However, deferred maintenance at the Mendel Center and the Benton Harbor pavement and athletic field infrastructure is becoming more critical.

Table 1: Facility Condition Index Summary

Facility Name	Year Constr-ucted	Size (SF)	Capital Replacement Value	2024 Escalated Urgent & Critical Requirement Cost (<1yr)*	Facility Condition Index
Beckwith Hall	2014	66,912	$15,107,400	$98,343	0.01
Hanson Tech. Ctr.	2016	42,275	$15,724,500	$93,823	0.01
Mendel Center	1978	138,688	$53,099,201	$3,894,151	0.07
Main Building	1968	300,689	$105,163,300	$933,542	0.01
South Haven*	2003	41,222	$14,732,300	$417,517	0.03
Todd Center	2002	43,400	$15,188,800	$93,161	0.01
Welch Center	2019	13,981	$7,536,100	$7,166	0
Total/Average		681,450	$226,551,601	$5,022,860	0.02

**2024 requirement costs do include site costs as they relate to the campus. The Benton Harbor Campus site is assessed separately due to the magnitude of the infrastructure and the interrelationship with buildings and athletic fields. Costs have been escalated 5% annually from the original 2021 estimates.*

Two buildings are less than six years old, Hanson Technology Center and Welch Center. The oldest facility, the Main Building (Napier Academic) was recently renovated in 2020

and therefore has seen a drastic decrease in the FCI. The second oldest facility, the Mendel Center, had the heating and cooling plant replaced in a project completed in August 2020, which lowered the FCI from previous years. However, with the amount of equipment at the end-of-useful life, the FCI has increased over the last year. Currently the building is considered in fair condition and is the focus of the College's first project among several priorities to address deferred maintenance and academic program needs. South Haven campus facility also has major HVAC equipment coming to the end of useful life. Beckwith Hall, a residential building, is now eight years old and renewal investment is needed for finishes such as carpet and painting. The first major renewal project at Beckwith Hall was completed in June 2023 with the replacement of all the common area carpeting.

Table 2: Requirement Priority by Facility and Site

Facility Name	Urgent (Past Due)	Critical (6mons - 1yr)	Moderate (1 - 5yrs)	Low (5 - 10yrs)	Total
Beckwith Hall	$6,500	$82,700	$456,500	$133,500	$679,200
Hanson Tech. Ctr.	$19,900	$65,200	$78,500	$10,500	$174,100
Mendel Center	$1,507,810	$2,024,300	$1,898,700	$91,200	$5,522,010
Main Building	$157,000	$689,750	$2,660,250	$1,843,000	$5,350,000
South Haven	$29,850	$348,850	$1,746,671	$360,550	$2,485,921
Todd Center	$26,600	$57,900	$914,000	$73,000	$1,071,500
Welch Center	$0	$6,500	$0	$0	$6,500
Benton Harbor Campus Site	$86,500	$285,700	$1,633,000	$2,362,200	$4,367,400
Totals*	$1,834,160	$3,560,900	$9,387,621	$4,873,950	$19,656,631

**Majority of the estimates for work were acquired from the 2021 Facility Assessment Report and have not been escalated for today's dollars; new projects added to the database are 2023 estimates.*

The relatively low number of requirements deemed urgent reflects our well-maintained facilities; however, this year many of the moderate priorities shift into a more critical timeline. Moderate priorities also continue to be driven by equipment that is beyond its useful or expected lifetime.

Please see the appendix for additional information: **2021 Facility Assessment Report**.

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 8. 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

	Main Building		Mendel Center [2]		Hanson Tech Center		South Haven		Beckwith Hall		Todd Center		Welch Center	
Building Type	Sq. Ft	% [1]	Sq. Ft	% [1]	Sq. Ft	% [1]	Sq. Ft	% [1]	Sq. Ft	% [1]	Sq. Ft	% [1]	Sq. Ft	% [1]
Administrative														
Auditorium	4,209	1.40	48,030	34.63										
Biology														
Chemistry														
Classroom	42,045	13.98	8,916	6.43	4,237	10.02	14,498	35.17			15,776	36.35	1,286	9.20
Dining Hall	1,748	0.58												
Dormitory									55,019	82.23				
Garage	7,119	2.37												
Gymnasium	15,401	5.12												
Laboratory	22,159	7.37			19,960	47.21	1,784	4.33					4,293	30.71
Library	22,896	7.61												
Office	55,804	18.56	5,535	3.99	2,228	5.27	6,356	15.42			7,617	17.55	658	4.71
Science														
Service	3,406	1.13					2,451	5.95						
Warehouse/Storage	11,369	3.78	5,658	4.08	713	1.69	139	0.34			2,926	6.74	260	1.86

1) Percentage is based on gross square footage of each facility.
2) 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.

The College's routine hours of operation for Benton Harbor Campus facilities have historically been, as a minimum, 8:00 a.m. – 10:00 p.m., Monday through Thursday; 8:00 a.m. – 5:00 p.m., Friday; and some facilities operating 8:00 a.m. – 12:00 p.m. on Saturday. The South Haven Campus is as a minimum 8:00 a.m. – 9:30 p.m., Monday through Thursday; 8:00 a.m. – 5:00 p.m., Friday. May through August the College is closed on Fridays. Weekend activities have increased since the pandemic, but only a couple of classes are running on Saturdays in Fall and Spring semesters and only at the Benton Harbor Campus. Since the pandemic, alternative online instruction delivery is still about 31% of the course offerings.

The College's facilities house a variety of instructional spaces ranging from traditional general-purpose classrooms to specialty labs. As specialty labs are dedicated for specific purposes and used based on times required by the curriculum (example: Health Science Simulation Lab), they are not included in the utilization calculations, since it would not adequately reflect the demand for classrooms within each facility.

Based on the number of instruction spaces and a minimum of 63-65 hours each week of availability the overall average utilization of only scheduled classrooms by instruction is approximately 23%. Continued evaluation is in progress as the College implements new scheduling software to manage both academic and non-academic space use. The new scheduling software will provide a fuller understanding of utilization across all spaces that accurately reflects academic and non-academic space use, which includes community use.

The College will be continuing to refine the space utilization data and methodologies. New strategies for space use are warranted in the post-pandemic reality of online learning and remote working. Community use and continued partnerships offer opportunity for increased utilization of the College's facilities, as well as modifying space to better serve programmatic needs.

Through a collaborative partnership with the Berrien County RESA, the College Board of Trustees approved gifting the Niles Campus building to the RESA in June 2023. The agreement allows the College to continue providing college programming to both Early College students (those who have not yet graduated high school) as well as traditional college students. Utilization of the facility is no longer included in the College's calculations since it is under new ownership.

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.).

- OSHA - Occupational Safety and Health Administration (all programs)
- ACEN – Accreditation Commission for Education in Nursing, Inc.
- ADA – American Dental Association
- ARRT – The American Registry of Radiologic Technologists
- CAAHEP – Commission on Accreditation of Allied Health Education Programs
- JRC-DMS - Joint Review Committee on Education in Diagnostic Medical Sonography
- JRCERT – Joint Review Committee on Education in Radiologic Technology
- MAERB – Medical Assisting Education Review Board

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

Many space needs have already been remedied by the Benton Harbor Campus, Main Building Renovation and Upgrade project, including areas for Health Sciences, Transitional Studies, Tutoring and Testing Services, Culinary and Hospitality programs, assembly, and collaboration space. The Benton Harbor Campus also houses the Manufacturing and Industrial Arts programs at the Hanson Technology Center, the Business and Information programs at Todd Center, Wine and Viticulture programs at Welch Center, and the Visual and Performing Arts programs at Mendel Center. The existing College structures provide adequate allocation of space, however programmatic needs continue to evolve.

The current Imaging space on the Benton Harbor campus houses the Diagnostic Medical Sonography (DMSO) and Radiologic Technician programs. The existing space is not functional for two programs with overlapping student traffic. The DMSO program also anticipates program growth with the addition of cardiac and vascular curriculum tracks, which is not feasible in the current space. Renovation to an existing space on the Benton Harbor campus will allow for planned program growth of the cardiac and vascular program tracks and will enhance the layout for community members to participate in student learning activities. With the relocation of DMSO to another space, the Radiologic Technology program will add an observance window into the current x-ray lab which will enhance the functionality of the space and meet the learning needs of the students.

The South Haven Campus anticipates growth in Health Sciences with the new Physical

Therapy Assistant, Truck Driving and Marine Technician programming, as well as future programing such as Brewing, Biotechnology/Food Safety, Cyber Security, Drone Piloting, Geographic Information Systems, none of which are feasible based on the current layout and use of college facilities. Without renovation to existing space, none of these programs can grow in the current facility layout. A new partnership with Michigan State University has been created to build a hoophouse structure at the South Haven campus. This partnership allows for new curriculum and research efforts to help meet the learning needs for our local students and local farmers.

Please see the appendix for additional information: **Notable Space Updates and Future Space Needs**.

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

The building replacement values, and machinery and equipment values noted below are based on a July 2023 summation of replacement value by MASB-SEG Property/Casualty Pool. Excluded from the replacement values below are site related parking and pavement structures, campus utilities, underground tanks, and athletic field structures.

Facility	Building	Furnishings & Equipment	Total
Main Building	$105,163,300	$11,442,200	$116,605,500
Mendel Center	$53,099,201	$3,017,300	$56,116,501
Hanson Tech Center	$15,724,500	$2,076,800	$17,801,300
South Haven	$14,732,300	$1,824,900	$16,557,200
Beckwith Hall	$15,107,400	$1,004,300	$16,111,700
Todd Center	$15,188,800	$1,006,501	$16,195,301
Welch Center	$7,536,100	$470,800	$8,006,900
Total	$226,551,601	$20,842,801	$247,394,402

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

The Main Building (formally known as the Napier Academic building) was constructed beginning in 1968. During the recent Renovation and Update project completed in 2020, the main equipment serving the HVAC system was replaced, including new boilers, chiller and cooling tower, air handler units, air terminal units, and cabinet heaters. Much of the existing ductwork and hydronic piping remained as is for the project, except where remodeling in the space also occurred. Electrical infrastructure was upgraded. The building received new LED lighting where areas were remodeled. Areas that were not

remodeled are an opportunity for continued lighting and controls upgrades. Some existing panels are nearing full capacity and will require further study for any future construction.

The Mendel Center was constructed over a period of years from approximately 1980 through 1990. The College completed an Energy Upgrades project to save energy and operating costs in the summer of 2020. The project replaced the heating plant boilers and the cooling plant with a new chiller and ice storage. The largest of four building air handlers serving the Grand Upton Hall event space has been replaced, but most of the air handling units are beyond the end-of-useful-life. LED upgrades were made for a majority of the building except for theatrical lighting, Grand Upton Hall work lights, and miscellaneous interior and exterior spaces. An envelope study was conducted for the Mendel Center in May 2019 which identified masonry repairs, sealant replacement and sloped window replacement. These envelope repairs are included in current capital project and work is underway. The replacement of mechanical systems which are at the end-of-useful-life are in critical need of investment and are one of the College's highest priorities.

The South Haven Campus was constructed in 2003. The building mechanical systems are running well, but heating and cooling equipment is approaching the end of life. Most of the interior lighting in the building is fluorescent with many fixtures not working or having a low performance. Exterior lighting for the building is fluorescent or high-pressure sodium.

The Beckwith Hall residence life facility was constructed in 2014 and opened for the first time to student residents in July 2014 and continues to operate reliably. LED lamps have been retrofitted for most fixtures in common areas; additional LED lamp retrofitting is needed in student suites. The self-contained packaged terminal A/C units used for the resident suites are currently in rotation for replacement. Over the next five to seven years all units will need to be updated.

The Hanson Technology Center was opened for classes in September 2016 and continues to operate reliably. Changes in machine laboratories required increased ventilation requirements which were added in May 2019. The building mechanical system is working well; however, humidity continues to be a challenge that impacts the lab machinery. The main mechanical issue is the multi-stack chiller, whose compressors require early replacement. The exhaust system in the welding laboratory is unable to handle the current welding fumes and particulates and will require modification to the ventilation/exhaust system. The installation of an exterior manifold gas system to provide various gasses to individual welding booths would reduce potential safety hazards within

the welding laboratory and reduce overall gas usage. A current study of the system is in progress to inform the changes necessary.

Todd Center was purchased by the College in 2018 but was originally built in 2002. The building has aged well, but mechanical systems are reaching the end of useful life. The College invested in a major cooling plant upgrade in the summer of 2020. The building automation system front-end was upgraded in 2021 and the equipment controls which were at the end of useful life were included in a project completed in 2023. Lighting is original fluorescent fixtures and needs to be upgraded.

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

Please see the appendix for additional information: **2021 Facility Assessment Report**.

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

The infrastructure at all sites consists of access roads, parking lots, and pedestrian walkways. Additionally, there are two small vehicular bridges and a large pedestrian bridge, all located at the Benton Harbor Campus.

The College's Main Building, Mendel Center, Hanson Technology Center, Todd Center, and Beckwith Hall share common infrastructure including over 800,000 square feet of asphalt paving. Some parking and roadways have been improved over the last 3 years but much of the pavement is still unimproved, at end of useful life, and requires planned replacement. With the winter freeze/thaw cycles recently, a substantial portion of the access roadway on the west side of the campus was significantly damaged. It was determined that the clay soil composition was at the root of the damage. New roadway was completely reconstructed on an emergency basis in late spring of 2022. Other areas of heavy clay and silt composition, including the College's parking lots, are vulnerable to similar deterioration. Major pavement repairs were made in summer of 2023, including mill/repair resurfacing several drive areas, crack repair and sealant, and limited and patching in the worst areas of Lot 2.

The Main Building entry was completely reconstructed, including new storm drainage, in summer 2019 as part of a larger campus exterior infrastructure improvement project. All the existing brick pavers were removed, and a new concrete plaza was built. The same year the Mendel Center north entrance was replaced. In late summer 2022 new concrete walks replaced deteriorated areas around the south side of the Mendel Center.

In Summer 2020 the entire northwest parking (Lot 1c) at the Main building was reconstructed adding much needed accessible parking and safe sidewalks to access

building entries. The northeast parking (Lot 2a) was also upgraded at the same time to support shipping/receiving and operations.

The Main building also has a large green roof plaza. Some improvements to the plaza were made in summer 2014. During the 2020 major renovation and upgrade project, masonry improvements at the perimeter of the plaza were made; however, drainage system replacement will be required to maintain the plaza. Existing concrete benches along the east and west sides were deteriorated; they were removed, and a new guardrail was installed along both sides in 2022.

The vehicular and pedestrian bridges located at the Benton Harbor Campus are original construction. They are in fair to poor condition. A bridge study was conducted Spring 2020 to evaluate approaches for repair and/or reconstruction, and safer passage for pedestrians. Repair to the bridges was completed in June 2023; however, no additional pedestrian improvements were included.

Work at the Beckwith Hall parking entries improved drainage and provided safer pedestrian access to the adjacent parking area in Summer 2019 and in Summer 2020 new accessible ramp was added at the main entry walk.

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 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 ten years. However, the west campus area, particularly the softball and baseball fields are plagued with water issues given clay soils and low wetlands topography. The entire west campus area is the focus of a west campus master plan completed in December 2022, which includes the evaluation of turf to improve and extend the playing seasons. Replacing and relocating the baseball and softball fields to the south of their existing location is a priority for the College.

After the main entry drive was flooded in February 2018, which caused the Benton Harbor Campus to close briefly, a study was proposed to assess and evaluate the existing stormwater infrastructure on the Benton Harbor Campus. Since that time, the Campus has not experienced any new site flooding, so the study has been postponed.

Additionally, there are numerous erosion issues, particularly around the pond. A pavement study for the Benton Harbor Campus in late 2017 identified an overall pavement maintenance and repair masterplan for the next ten years.

The South Haven Campus building is less than twenty-five years old, and the utility infrastructure is in good condition. However, the campus is experiencing asphalt

pavement deterioration and erosion issues. A 2018 pavement study was conducted and identifies an overall pavement maintenance and repair masterplan for the next ten years. Major pavement maintenance focused on crack repair and sealant with limited mill/repair was conducted in Summer 2021. Future mill/repair work is planned.

Please see the appendix for additional information: **2021 Facility Assessment Report**.

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

Our recent Main Building (Napier Academic Building) Renovation and Upgrade project addressed the existing utilities and infrastructure system which had been our highest priority. Work was substantially completed in August 2020. Limited areas which were in newer condition (10 years or less) which were not included in project work are beginning to require upgrades. Expanding program offerings in health sciences is driving renovation to existing lab space to meet the changed learning requirements. In June 2018, the College purchased the Western Michigan University Southwest building, now named the Todd Center for Business, Education and Computer Information Systems. This building is now fully occupied to serve these expanded and relocated programs, allowing growth in our Main Building. As academic programs evolve in the next five years, there is special attention needed on the overall electrical capacity for the Todd Center building.

On the northeast corner of the Benton Harbor Campus in 2019, the College opened the Welch Center for Wine & Viticulture. The College invested in the extension of utilities and infrastructure to support this new facility.

In 2020, an energy upgrade project replaced the heating and cooling plant for the Mendel Center. However, building-wide end of life mechanical systems components at the Mendel Center will need to be addressed to support both the continued growth in Visual and Performing Arts programs and the community programming the Mendel Center is known for.

The changes to the Benton Harbor Campus have required the College to address the new pedestrian and vehicular patterns associated with the larger campus environment. In conjunction with the improvements made at our Benton Harbor Campus over the several years, we expect increased campus activity to drive facility and infrastructure expansion improvements of our College as we emerge from the COVID-19 pandemic. The College developed a wayfinding master plan to improve movement between facilities for students, guests, and employees. New exterior signage has completed the first two phases which included our main entrance marquee upgrade and wayfinding signage at each entry point, as well as navigational signage on the interior of the campus. The new

interior building signage standard laid the groundwork for the resigning of all Main Building spaces with new ADA compliant signage as a part of the Main Building (Napier Academic Building) Renovation and Upgrade project. The interior wayfinding sign system was upgraded in the Main building in 2022. Future interior wayfinding improvements are being considered for Todd Center and Mendel Center.

The western portion of the Benton Harbor campus needs to be upgraded in the next five years to provide modern, sustainable and functional sports facilities that allow for the successful growth of athletic programs at the College. The West Campus Master Plan project proposes a vision to better connect athletics and recreation to student life, which will improve the overall student experience on campus. A new field house is envisioned to help provide adequate and accessible game and spectator experiences, modern fitness center, space for expansion of student recreation, and opportunities for community athletic use.

An additional residence hall is a long-term vision to create diverse and inclusive living/learning communities. However, as a first step, renovation to the existing Beckwith Hall residence building is planned for 2024 to increase the density of a select number of existing suites. The goal is to provide quality housing at a lower price point and to test the concepts prior to further investment.

South Haven campus has some renewal projects required, but the core infrastructure continues to support the programmatic needs for the next five years. The new Physical Therapy Assistant program is driving renovation of several classrooms to provide new lab space.

Please see the appendix for additional information: **2021 Facility Assessment Report, Notable Space Updates and Future Space Needs, Campus Master Plan,** and **Information Technology Strategic 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 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 historic use of the lake surrounding our Main Building (Napier Academic Building) as the cooling source for our original HVAC plant.

We have completed several energy audits over the last ten-plus years with a variety of firms and consultants including Honeywell Energy Services, VFA, and Progressive

Architecture & Engineering Services as part of our facilities condition assessment. The results of these planning efforts have been built into our facilities improvements. Additionally, our Commissioning Agents at Catalyst Partners and Peter Basso & Associates have helped lead our recent major renovation projects and are now assisting with verification efforts.

Over the past five years, Lake Michigan College has invested over $44.5 million in physical plant upgrades, enhancements, and expansions at the Benton Harbor campus. Each of these projects included energy efficiency and sustainability elements including energy efficient heating and cooling plant and distributions systems, roofing, LED lighting, and window systems, and low-volume flush units in restroom upgrades. We are continuing to expand our building automation system controls to cover more of our facilities. Working with our utility providers, we have participated in both electrical and natural gas utility rebate programs on several projects. These rebates have been allocated to our general fund to support future capital renovations.

The measurement and verification efforts for the Energy Upgrade project at the Mendel Center was completed in June 2023. The upgrades, which included new heating and cooling plants and LED-relamping, are providing over $53,000 of savings annually. Future savings is anticipated when the other components of the HVAC system are replaced, and controls are updated.

Phase 2 of the Todd Center controls upgrade to was completed in spring 2023. our standard building automation system platform. The upgrade has provided control over all the existing equipment including, operations of boilers, chillers, cooling towers, air handling units, air terminal units, and cabinet heaters. The College is now able to schedule areas to be occupied or unoccupied at certain times to provide better energy use management. Since the upgrade notable energy savings has already been noted; a more comprehensive review is in progress. The College is getting closer to having similar levels of control and scheduling for all buildings to better manage energy use.

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.

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

Address	City	State	Facility	Acreage
2755 E. Napier Avenue	Benton Harbor	MI	Benton Harbor Campus	263.00 acres
125 Veterans Blvd.	South Haven	MI	South Haven Campus	7.73 acres

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

Address	City	State	Facility	Acreage
Foundation Drive	Niles	MI	*none*	4.94 acres
1442 Yore Avenue	Benton Harbor	MI	*none*	2.06 acres
1486 Yore Avenue	Benton Harbor	MI	*none*	2.06 acres
1508 Yore Avenue	Benton Harbor	MI	*none*	1.98 acres
2840 Territorial	Benton Harbor	MI	*none*	23.80 acres
321 Vernon Road	Benton Harbor	MI	*None*	0.25 acres

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

At the Benton Harbor Campus, approximately 114 acres are being maintained, leaving 149 acres open, some of which is available for development. Portions of the remaining acreage are maintained in natural forest, wetlands, and prairie grass ecosystems, and are used for instructional programming.

In 2020, LMC divided a 14.6-acre parcel at the South Haven Campus to transfer 6.87 acres back to the City of South Haven. The South Haven Campus still includes land for at least one additional facility.

In 2023, LMC transferred the 8.03-acre parcel and the building at 1905 Foundation Drive to the Berrien County RESA. The adjacent 4.94-acre parcel is still owned by the College.

In summary, we have planned for and acquired land for our future development needs.

Please see the appendix for additional information: **Campus Master Plan.**

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

Facility	Obligated in:	Expires in:
Main Building	2020	2060
South Haven Campus	2003	2043

The Todd Center building, originally the Western Michigan University Southwest building, was obligated in 2002 and was set to expire in 2037. However, the State Building Authority has terminated the lease early. Once the process is completed the property will be conveyed to the College.

V. Implementation Plan

The 5-year comprehensive master plan should identify the schedule by which the institution proposes to address major capital deficiencies, and:

A. Prioritized major capital projects requested from the State, including a brief project description and estimated cost, in the format provided. (Adjust previously developed or prior year's figures utilizing industry standard CPI indexes where appropriate).

Currently none of the capital projects which are the highest priorities to the College are eligible for State capital outlay financing. Those projects include HVAC and interiors renovation to the Mendel Center (performing arts and community center), the replacement of the athletic fields, and a new athletic and community use field house.

The 2021 College-wide Facilities Assessment laid the groundwork for future capital replacement and renewal costs looking forward 10 years. Together with new academic needs and utilization studies, the College is developing an update to the comprehensive 10-year capital improvement plan with funding support from both the existing millage and College reserves.

Please see the appendix for additional information: **Campus Master Plan** and **2021 Facility Assessment**.

B. If applicable, provide an estimate relative to the institution's current deferred maintenance backlog. Define the impact of addressing deferred maintenance and structural repairs, including programmatic impact, immediately versus over the next five years.

Lake Michigan College has identified a five-year backlog of $19.6M deferred maintenance. Of this backlog, we have identified $5M of currently critical deferred maintenance items that have safety, regulatory or collateral damage implications within one year. With the completion of the Main Building (Napier Academic) Renovation & Upgrade and the Mendel Center Energy Upgrades, and the donation of the Niles Campus building to the Berrien RESA, our overall deferred maintenance as a percentage of capital replacement value (Facility Condition Index) has dropped from 0.13 in 2018 to 0.02, which is very good. Overall, our facilities are in good condition and have been well maintained; however, the Mendel Center has critical systems to address.

Our largest and oldest assets have the largest backlog of deferred maintenance; they include the Benton Harbor Campus grounds, Mendel Center and Main Building.

An exterior envelope study was conducted at the Mendel Center in 2019. Deferred maintenance was identified for masonry and window systems, which is currently under contract. Mendel Center also has end-of-life mechanical equipment in critical need of replacement. To support programmatic needs, tired spaces need to be refreshed and have reliable heating, cooling and ventilation. Original finishes in the academic spaces of the building are overdue for replacement.

Over $3.6M of major and routine capital budget is planned to begin this fiscal year, much of which addresses deferred maintenance such as roofing replacement, elevator upgrades, pavement repairs, drainage repairs, ladder and catwalk safety, and masonry and sealant repairs. Smaller maintenance and repair work will be addressed operationally to correct items in the facility assessment which are now an urgent or critical need.

C. Include the status of on-going projects financed with State Building Authority resources and explain how completion coincides with the overall five-year Capital Outlay Plan.

Facility	Project Status
South Haven Campus	Complete and operational
Todd Center (Transferred ownership from WMU)	Complete and operational
Main Building (Napier Academic) Renovation & Upgrade	Complete and operational

D. Identify to the extent possible, a rate of return on planned expenditures. This could be expressed as operational "savings" that a planned capital expenditure would yield in future years.

Several recent projects had targeted energy savings. Original estimates indicated that the College will save $320,000 annually in utility costs for the next 20 years by replacing the existing HVAC system with an energy efficient, sustainable system at our Main Building on the Benton Harbor Campus. Evaluation of this operational savings was planned to begin September 2020, but with the COVID-19 pandemic and changes of building use the operational energy review began in 2021 and is still in progress.

The College completed an Energy Upgrade and Modernization project, which has reduced energy in the Mendel Center by approximately $53,000 annually. In addition, other projects, particularly exterior envelope repair at our Main Building, while not resulting in an annual cost savings, do represent an eventual cost savings in reduced collateral damage to adjacent building infrastructure. Future building envelope

upgrades are planned for the Mendel Center.

The College will continue smaller energy projects, including LED lighting upgrades and installation of higher efficiency equipment. Partnering with local utilities for rebate opportunities continues to be a strategy that we have recently used for the Main building gym lighting upgrades in 2020 and the Main building B-Wing lighting upgrade in 2022.

E. Where applicable, consider alternatives to new infrastructure, such as distance learning.

The College has upgraded teaching technology in classrooms at all three campuses to support flexible and distance learning in 2021. However, spaces to accommodate both in-person and remote instruction simultaneously are a challenge and will require new hybrid-sized rooms.

While distance learning has become increasingly important, some programs still require hands-on learning for effective instruction.

Programs requiring hands-on instruction include:

- Advanced Manufacturing: Automation Engineering, Electrical Distribution, Engineering Technology, Machine Tool Technology, Mechatronics Technology, and Skilled Trades Technology
- Culinary Management
- Criminal Justice
- Health Sciences: Certified Nurse Aide (CNA), Dental Assisting, Diagnostic Medical Sonography, EKG Technician, Emergency Medical Technician (EMT), Medical Assisting, Nursing, Pharmacy Technician Phlebotomy Technician, Physical Therapy Assistant (under development), and Radiologic Technology
- Natural Sciences
- Networking
- Visual and Performing Arts
- Welding
- Wine and Viticulture Technology

F. Identify a maintenance schedule for major maintenance items in excess of $1,000,000 for fiscal year 2024 through fiscal year 2028.

Project Description	Estimated Cost	Implementation Year(s)
Mendel Center HVAC & Interiors Upgrades *(Including replacement of all HVAC equipment and replacement of interiors in the band room, academic offices and the public lobby and corridor at Hanson Theatre)*	$14,600,000	FY24-28*
Mendel Center - Exterior Upgrades *(including roof and masonry repairs, and sealant and sloped window replacement)*	$1,100,000	FY23-24
Athletic Fields *(relocating the baseball/softball fields, locating a new regulation size soccer field)*	$10,500,000	FY25-27
Field House *(new building with accessible game courts, fitness area, locker rooms)*	$12,000,000	FY27-28
Reconstruct Benton Harbor Parking Lot(s) *(including design for lot reconfiguration and full reconstruction in some locations)*	$4,500,000	FY27-28

**Project may be phased over two major bid packages to allow first priority work to advance sooner.*

G. Identify the amount of non-routine maintenance the institution has budgeted for in its current fiscal year and relevant sources of financing.

For the current fiscal year, Lake Michigan College has budgeted $300,000 for non-routine general maintenance projects, equipment and required renovations and $200,000 for pavement maintenance. New this fiscal year, the College has budgeted $10,000 specifically for accessibility improvements to address standalone projects over the capital threshold or to supplement other work with accessibility components.

Institutional ("general fund") funding is supplemented by revenue from a capital millage that is levied through 2026 as well as a planned capital fundraising campaign that will begin in the coming months. An analysis is underway to specify the sources of funding by project as well as assess the need for bond (debt) financing.

Appendix A – Registrar's Official Program Major Listing

Academic Year 2023-24

10-01-23

Associate Degrees

1. Associate in Business Administration
2. Associate in General Studies

Associate in Arts

3. Art
4. Communication
5. English
6. Graphic Design
7. History
8. Music
9. Philosophy
10. Political Science
11. Psychology
12. Sociology
13. Teacher Education
14. Theatre
15. Undecided – Transfer
16. World Languages

Associate in Applied Science

17. Accounting
18. Applications Development
19. Applied Science - General
20. Automation Engineering
21. Business
22. Child Development
23. Criminal Justice
24. Culinary Management
25. Cybersecurity
26. Diagnostic Medical Sonography
27. Electrical Distribution
28. Engineering Technology
29. General Technology
30. Machine Tool Technology
31. Mechatronics Technology
32. Medical Assisting
33. Music
34. Networking
35. Nursing
36. Pharmacy Technician
37. Radiologic Technology
38. Skilled Trades Technology
39. Surgical Technology
40. Teacher Education
41. Welding Production Technology
42. Wine and Viticulture Technology

Associate in Science

43. Biology
44. Chemistry
45. Engineering (Pre-)
46. Esports Production
47. Exercise Science
48. Health Science
49. Mathematics
50. Physical Science
51. Physics
52. Science-General

Advanced Certificate

1. Child Development
2. Cisco
3. Cybersecurity
4. Liberal Arts
5. Machine Tool Technology
6. Medical Assisting
7. Pharmacy Technician
8. Skilled Trades Technology

Certificate of Achievement

9. Bookkeeping
10. Chocolate & Confections
11. Digital Marketing
12. Esports Production

13. Geospatial Information Science and Technology
14. Graphic Design
15. Information Technology
16. Machine Tool
17. Manufacturing Production
18. Mechatronics Technology
19. Phlebotomy Technician
20. Registered Behavior Technician
21. Risk Management & Insurance
22. Sales & Customer Service
23. Small Business Management
24. Spanish Certification
25. Sterile Processing Technician
26. Supervisory Skills
27. Web Development
28. Welding Production Technology

Totals Reported to HLC:
Associates 52
Certificates 28

Appendix B – 2021 Facilities Condition Assessment

Note: This report was completed in 2021 working with contracted Architectural and Engineering services provider. Since its completion the College has been working within the comprehensive database established by the assessment to address deferred maintenance work and to plan future work. The 2021 report is provided as reference. All costs associated with report are from 2021.

Table of Contents

Summary

General Description

Lake Michigan College has three campuses: Benton Harbor, Niles and South Haven totaling nearly 300 acres of property. These three campuses contain eight buildings, totaling over 680,000 square feet ranging in age from 2 to 53 years. These buildings create spaces for thousands of students to learn and grow every year.

While the College cares for its facilities, a third-party comprehensive facility audit was needed to provide both an overall view of the state of the facilities as well as a prioritization of needed repairs. There have been numerous upgrades and projects in the past to ensure the students have the best environment to learn. To continue to provide safe and comfortable learning environments for every student, the buildings require certain maintenance and improvements. This assessment report summarizes thousands of observations in an attempt to understand the scope and types of risk the College faces with respect to its facilities and to provide an understanding of the current state of the College's facilities.

A robust database of observations, recommendations, and associated costs accompanies this report. This database is a living document for LMC Facilities to update and add to for the purpose of tracking facility deficiencies and capital project planning.

This facility assessment report is based on walk-throughs of the noted buildings and properties starting in late May 2021 through early July 2021, as well as a review of drawings and reports made available by the College. General observations are broken down by campus and building and are based on the current state of the facility as of the walk-throughs.

Assessment Approach

Architecture and engineering professionals walked the buildings and properties of Lake Michigan College, identifying deficiencies and making observations and recommendations for improvements or replacements for the systems and components of the buildings and their surroundings. These recommendations have been assigned a priority rating and brief description as follows:

- Urgent (past due) – Items with life safety implications or heavily impacting critical programs or function.
- Critical (6 months to 1 year) –Items that have failed or are close to failure and could have a chain reaction, causing other things to fail.
- Moderate (1 year to 5 years) – Items impacting accessibility or equal access and items at or near the end of life that should be considered for proactive, planned replacement to minimize cost and minimize risk to programs.
- Low (5 years to 10 years) – Items that should be budgeted and planned for in the future.
- N/A (No replacement planned) – Observations not requiring action, for information only; systems equipment that are new but should be tracked because they will require capital investment 10 to 20 years down the road.

Observations also include a reason for the improvement or replacement which include the following:

- Code/Regulatory – Items that do not meet current building codes and standards.
- Age/Useful Life – Equipment/systems/elements that are reaching end of useful life.
- Energy Efficiency – Items that are causing excessive energy consumption or improvements that could increase energy efficiency.
- Life Safety/Health – Items that pose a life safety or occupant health risk.
- Accessibility – Items that do not meet current ADA standards or do not provide equitable accommodations for all bodies.

The evaluations included functionality ratings ranging from 1 (non-functioning) to 5 (all functions perform) to assist the observation team in data collection and establishing useful life expectancy. However, there is

no direct connection to the Priority Rating or Project Expenditure reason, but instead, the information was used as a contributing component to the overall evaluation. The Evaluation Ratings are as follows:

- 5 – All functions perform (functions well, well-maintained, meets applicable codes and standards).
- 4 – Most functions perform (functions well, may require some maintenance or repair, minor issue with codes/standards).
- 3 – Some functions do not perform (may have some operational issues, requires repair or renewal, code issues).
- 2 – Most functions do not perform (barely functional, requires renewal or replacement).
- 1 – Non-functioning (not operational or performing intended purpose, requires replacement).

Observations are generally organized by asset type category (UniFormat) as follows:

- # - Miscellaneous: Code and regulatory items
- A – Substructure: Foundations and slabs
- B – Shell: Superstructure, vertical (walls, windows and exterior doors) and horizontal (roof) enclosures.
- C – Interiors: Interior doors and walls, ceilings, finishes, casework and furnishings.
- D – Services: Plumbing, HVAC, fire alarm and protection, electrical, communication and elevators.
- E – Equipment and Furnishings: Furniture, casework, window treatments
- G – Sitework: Parking walks, exterior barrier-free access and stormwater.

This assessment was conducted in a non-invasive, non-destructive manner from the floor, grade or other accessible level based on visual observation only. It provides an overall condition assessment of the requested buildings and properties. This assessment should not be considered all-inclusive of issues or concerns that might exist with the facility, but instead serves as advisement based on what Progressive AE was able to observe on the day of the on-site evaluation and from review of available documents.

In addition, the Opinion of Probable Cost included in this report is a ballpark installed cost estimate (labor and materials only) based on today's marketplace value. Soft costs such as design and contractor fees are not included. Once fully designed, documented, and submitted for bids to contractors, the cost may vary due to a number of reasons such as unforeseen conditions, material and labor cost fluctuations, and escalation factors related to when the work is completed.

In closing, this report is based on a snapshot in time of the conditions as presented on the walk-through evaluation and any additional information provided by Lake Michigan College. It is intended to be used by the College for general operations and maintenance as well as a planning tool for future master planning efforts.

Best Practices

Accessibility

All buildings and paths of travel on the site were evaluated against the 2010 ADA Standards for Accessible Design. The scope of these standards is wide-ranging and many instances of non-compliance were found. Although compliance is not necessarily required for construction that predates the standard, the standard is a helpful guide for creating an environment that is safe and inclusive for all, providing equitable accommodation for all bodies.

Not all deficiencies are equal in terms of risk and cost to correct. For the purposes of this assessment, we categorized deficiencies with a risk of trip and fall or direct bodily injury as critical risk, whereas deficiencies that do not allow equal accommodation or have a more indirect risk of injury like items out of the reach of a wheelchair user were categorized as moderate risk.

Asset Renewal

Items that require periodic renewal like finishes were not generally included in the observations, but here are some general rules of thumb for finishes and building elements:

Item	Expected Life
Interior Paint	
High traffic areas (corridors, etc.)	*5 years*
Lower traffic areas	*10 years*
Caulking	5 years
Acoustical Ceiling Tile	30 years
Ceramic Tile	50 years
Carpet	
High traffic areas (corridors, etc.)	*5-10 years*
Lower traffic areas	*10-15 years*

These rules of thumb are variable depending on care and use. Where the observation team noticed finishes could be better preserved by corner guards or chair rails, it was noted in the observations.

Facility Condition Index

To objectively assess facilities, the Facility Condition Index (FCI) is a standard for higher education management. The FCI is a ratio of the current year's required renewal cost to the current building replacement value. The total cost for building improvements is divided by its replacement cost. The lower the FCI, the less money is required to maintain the facility. Below is the estimated FCI for each building on the Lake Michigan College Campus. All of the buildings are in good condition. An FCI score of <.02 is considered good.

Building	Year Constructed	Size (sf)	Capital Replacement Value	2022 Requirement Cost	FCI
Welch Center	2019	13,981	$6,798,627	$5,000	0.00
Hanson Tech Center	2016	42,275	$10,930,973	$61,700	0.01
Beckwith Hall	2014	66,912	$9,762,795	$233,650	0.02
Todd Center	2002	43,400	$11,843,081	$108,548	0.01
Mendel Center	1978	138,688	$37,235,666	$1,528,950	0.04
Main Building	1968	300,689	$94,898,525	$726,350	0.01
Niles	1998	34,283	$7,804,248	$598,000	0.08
South Haven	2003	41,222	$10,023,526	$304,200	0.03
Total/Average		681,450	$189,297,441	$3,566,398	0.02

General Observations and Recommendations

Benton Harbor Campus

Site

The 263 acre Benton Harbor campus dates back to the 1960s and has over 800,000 square feet of asphalt paving. Selected areas have been replaced and routine maintenance has been performed on all lots which are shown in Figure 1. Almost all of the recommended improvements are either low or moderate priority to be looked at over the next 5 to 10 years.

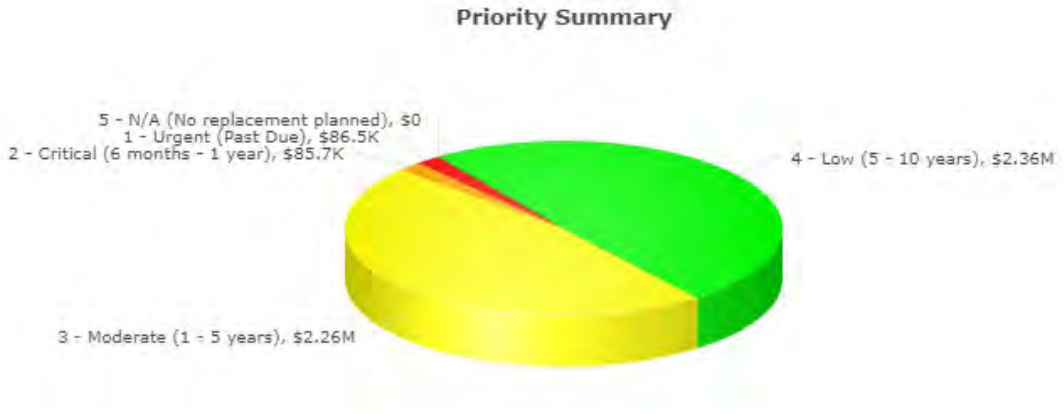


Figure 1 – Cost of Improvements by Priority

The site pavement has been evaluated and detailed in a study prepared by Abonmarche in 2018. This study outlined several improvements for parking and roadways. Some parking and roadways have been improved over the last 3 years but much of the pavement is still unimproved, at end of life, and requires planned replacement since much of it has reached the age where resurfacing is effective for a shorter and shorter duration. The observations by Progressive AE also identify erosion issues that should be addressed.

Electrical site systems include campus parking lot lighting and decorative lampposts along key entry drives. The site lighting has seen routine maintenance, but no upgrades. There is an opportunity for energy savings from upgrading to more efficient lamps.

Welch Wine Center

The Welch Center is nearly 14,000 square feet and was opened in 2019. This building is only 3 years old and since they are new, the majority of the building systems have no planned replacement as shown in Figure 2. The Critical and Urgent items are typical building maintenance items that are typical to every building as they are used.

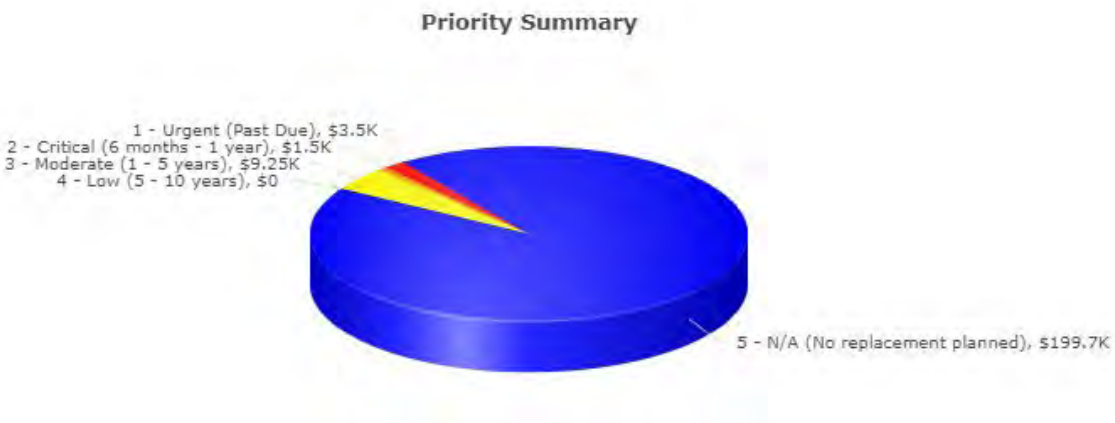


Figure 2 – Cost of Improvements by Priority

The site parking and walks are in good condition; however, the evaluation identified several areas of erosion that should be addressed before they cause more damage.

All other building systems and components were found in good condition with only a few minor items to address. With good building care and under current usage, building finishes should not require planned renewal for 10 years other than occasional paint touch-ups.

Hanson Technology Center

The Hanson Technology Center is around 42,000 square feet and was opened in 2016. This building is 5 years old and has very few urgent items needing replacement. Some critical items should be addressed within the next year, cracking on the concrete floor and leaking outside air louver. Figure 3 shows the cost of improvements/replacements sorted by priority recommendation.

Figure 3 – Cost of Improvements by Priority

The building finishes and architectural elements have held up fairly well. Some minor building envelope issues should be addressed including some curtainwall water intrusion and exterior metal cladding that needs to be refastened. There is some floor cracking that requires further investigation to understand the cause and remedy. Occupants report some acoustical concerns that also may be worth further study.

The main building mechanical system is working well. The main mechanical issue is the multi-stack chiller, whose compressors are requiring early replacement. Progressive AE suggests adding 1 or 2 small

10-ton compressor modules onto the multi-stack for better part-load operation and to prevent the large compressors from over-cycling as they do currently.

The electrical system is in good working condition with no major issues to report.

Beckwith Hall

Beckwith Hall is a 67,000 square-foot dormitory built in 2014. Figure 4 shows the cost of improvements by priority. There are not many urgent improvements that need to be addressed. The largest recommended improvement is carpet replacement at $150,000 which is a moderate priority in the next 1 to 5 years.

Figure 4 – Cost Improvements by Priority

The building has held up well, showing the normal wear and tear of the student residential facility. Finishes in residential facilities require regular renewal. Painting and carpeting in public areas like lobbies and corridors should be replaced every 5 years. Residential suites should have paint touched up every year and carpet and paint completely redone every 10 years.

Accessibility of the facility has been evaluated in the past and was evaluated again for this assessment. ADA units require improvements in the bathrooms that are planned for next year. When the opportunity arises, kitchens in the ADA units should also be upgraded to facilitate the use of the appliances by individuals with disabilities.

Beckwith Hall mechanical systems are furnace units for the common areas and packaged terminal air conditioning (PTAC) units for the apartments. These systems seem to be in good condition. The typical lifespan of this type of equipment is 15 to 20 years; however, our understanding from facilities staff is that some of the apartment units are already failing. With this knowledge, we recommend evaluating the type and quality of replacement units to try to get a longer life out of the equipment and considering extending the building management system into the building and controlling heating and cooling units in the apartments centrally, allowing occupants to control within a limited range.

The electrical system is in good condition with recommended arc energy and arc flash updates for the 2500A main electrical switchboard to comply with NEC 240.87 and NFPA 70E. The existing fire alarm system is in good working condition with no issues to report.

Todd Center

The Todd Center is 43,000 square feet and was built in 2002. The building was constructed with high-quality systems; however, at 20 years of age, it is reaching the point where many systems require renewal. Figure 5 shows that a majority of the items are of moderate priority and in the next 5 years will need to be replaced. Figure 6 shows that most of the moderate priority items are building services.

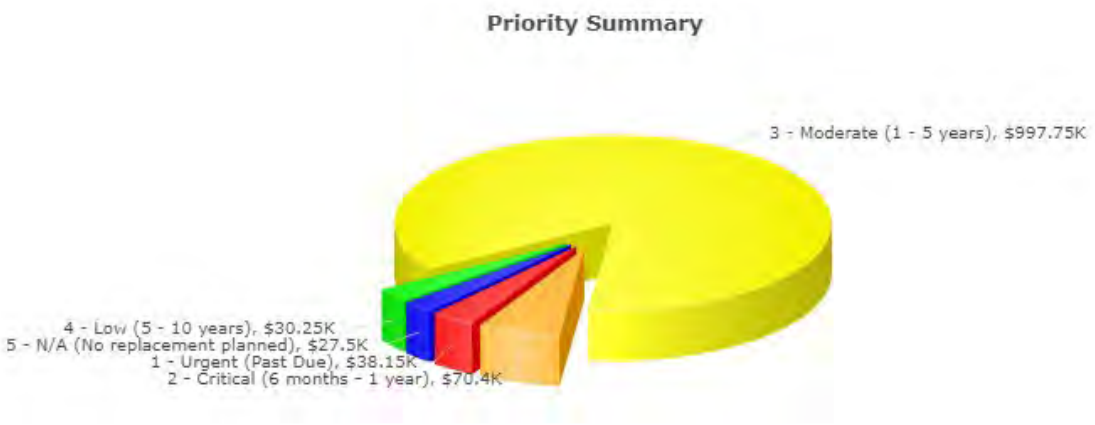


Figure 5 – Cost of Improvements by Priority

Figure 6 – UniFormat Summery of Moderate Replacement items

Building finishes are holding up fairly well since the building has not been heavily utilized. Carpets and ceilings should be planned for renewal in 5 to 10 years. The building exterior is also in generally good condition, but some maintenance work is required to ensure the longevity of the building materials. The building elevator system is not operating smoothly and requires some maintenance work.

The mechanical systems are all running well at this time, but some equipment is near the end of life and upgrades would provide the opportunity to improve energy efficiency and system reliability. The energy recovery units are not currently operating as intended and require a controls contractor and commissioning agent to come out to help replace the actuators and restore proper operation. The unit controls should also be brought over to the LMC standard of Tridium Schneider to make them easier to monitor and maintain. The boilers and air-cooled chiller are nearing the end of life and replacement should be scheduled and budgeted in the next 5 years to allow for a planned replacement and avoid unplanned outages.

The electrical system appears to be added onto over the years with current documentation not reflecting current conditions. Further attention is recommended to the existing panel ratings, breaker sizes, feeders and labeling. With several panels nearing full capacity, a load study is recommended for all future work involving increased electrical load. The generator is approximately 19 years old and is not planned to be replaced at this time.

Lighting is an ongoing issue in the building, as fixtures reach the end of life and new ballasts are added to replace the failing ones which cause issues with the remaining fixtures. Most lighting is fluorescent and not energy efficient. Lighting controls throughout the building do not meet ASHRAE 90.1-2013, the current Michigan Energy Code. The building is a good candidate for a lighting upgrade for fixtures and

controls by either re-lamping existing fixtures with LED lamps or replacing the entire fixture with an LED fixture. Location of the fixture, fixture type, owner preference and the condition of the fixture housing all may assist in deciding on whether a re-lamp or complete fixture replacement is the best decision. AEP incentives could likely fund much of the material costs.

Mendel Center

The Mendel Center is 138,000 square feet. Initial construction was in 1978, with the building completed and fully open to the public in 1992. The building has had some renewal/renovation efforts in the Mainstage lobby, Grand Upton Hall and Hanson Theater. An energy conservation project also upgraded most of the building's non-theatrical lighting and upgraded the heating and cooling plants. Figure 7 shows the cost of future improvements sorted by priority. This graph shows that there are a lot of improvements that will be required in the next 5 years. Figure 8 shows the types of improvements that are recommended in 1 to 5 years, most of these improvements are building shell improvements and building services.

Figure 7 – Priority Cost Improvements

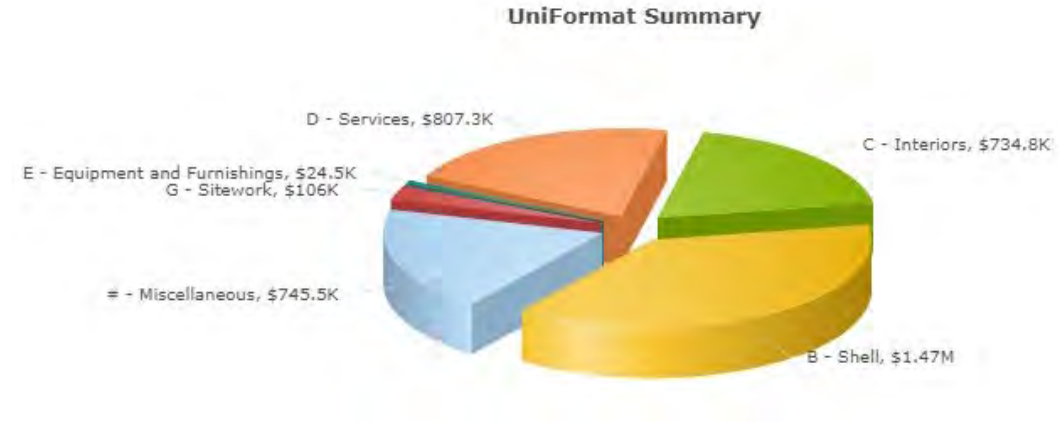


Figure 8 – Improvements Required in 1 to 5 years

A condition assessment of the building envelope, including thermal scans, was performed in 2019 by SME. The assessment recommended replacing the sloped windows on the Mainstage atrium lobby as well as a variety of masonry repairs and sealant replacement. Those costs have been incorporated into the facility assessment system.

Building finishes have been updated in the areas noted above. The remainder of the carpets and ceilings in the building are at end of life and should be planned for replacement. Very high traffic areas like the

main entry for Grand Upton Hall should be budgeted for carpet replacement every 1 to 5 years. Mainstage lobby carpet should be planned for replacement every 5 to 10 years.

ADA compliance is a concern throughout the facility in areas like the ticketing and support spaces at the north entry. These two spaces also have life safety code concerns due to improper fire separation between public and service. Building restrooms also require remodeling to meet current ADA standards.

Most of the Mendel Center air handling units are at the end of useful life and many are leaking badly from rust and corrosion. These units should be scheduled for planned replacement in the next 2 to 3 years as reliability will only continue to decline and maintenance and energy costs to operate them will only increase. Failure of these units will result in a lack of ventilation for the building the inability to hold events at the Mendel Center. Replacing this equipment should be considered critical to the future reliability of the building. It should also be noted the unreliability of the current equipment is the cause of the out-of-control humidity levels that frequently occur in the building, causing the decline of absorbent materials in the building like carpets, upholstery, and theatrical curtains.

The electrical system is functioning but arc flash updates are recommended for the 3000A main electrical switchboard to comply with NFPA 70E. Several panelboards throughout the building are not clearly labeled and the facilities staff indicated that it has been extremely difficult to locate branch circuits. Therefore, it is recommended to develop 'As-Built' panelboard schedules and an electrical one-line diagram to provide reference documents for future work. The diesel generator performs all functions according to maintenance reports, but is nearing the end of life and should have provisions made for replacement soon.

The majority of lighting in the building has been re-lamped to LED, but there remain some interior and exterior areas that contain inefficient lamps that should be addressed. Minimal lighting controls with multiple manufacturers are also present throughout the building and it is recommended to update lighting controls for the entire building to meet ASHRAE 90.1-2013 and better increase energy efficiency. A large number of exit signs are not illuminated and repairs to existing exit signs only last a short time according to the facilities staff. It is recommended to replace all exit signs with LED for increased reliability. Lastly, the existing fire alarm system is an EST3 and appears to be in good working condition with no known issues to report.

Main Building

The Main Building dates back to 1968 and is over 300,000 square feet. The building has undergone many additions and renovation projects in selected areas, including replacing much of the major mechanical equipment and refreshing finishes in the last couple of years. Figure 9 shows the cost of future improvements. This graph shows that there are very few items that are Critical or Urgent priority (1 and 2) and many items that have recently been replaced (Priority 5). Lake Michigan College has done a great job at maintaining and improving the facility.

Figure 9 – Main Building Improvement Cost by Priority

A study of the building envelope was done by SME in 2018. The report provides several recommendations to stop moisture intrusion into the building, including extensive work around the Plaza Deck and replacing problematic windows. Much of this work was completed in the renovation project in 2020.

While areas of the building that have been renovated in the last 10 years meet current accessibility standards many of the areas that have not been renovated recently do not and have been noted in the observation report.

The new mechanical systems seem to be operating reliably and well; however, the new cooling tower is having debris get caught in the top drain basin, causing it to periodically plug up and overflow. Adding an inline filter and deep clean and flush of the system is recommended. There are some rooms on the top floor of C-wing and B-wing that seem to have room pressure issues. Additional return air grilles or transfer ducts may need to be added if the system cannot be balanced as is.

The electrical system is in good working condition with no major issues to report. A major renovation in recent years has updated the main electrical gear, generator and many of the panelboards throughout the building. The fire alarm system has also been upgraded along with a large amount of lighting. Notable issues include several panels nearing full capacity and a load study should be performed if future construction takes place. Some light fixtures are also still fluorescent and updating these to LED will improve energy efficiency along with adding controls that meet ASHRAE 90.1-2013.

Niles Campus

The Niles Campus is 13 acres. The 34,000 square foot building was built in 1998. Figure 10 shows the cost of future improvements sorted by priority. This graph shows that there are a lot of improvements that will be required in the next 5 years. Figure 11 shows the types of improvements that are recommended in 1 to 5 years, most of these improvements are Sitework, building shell improvements and building services.

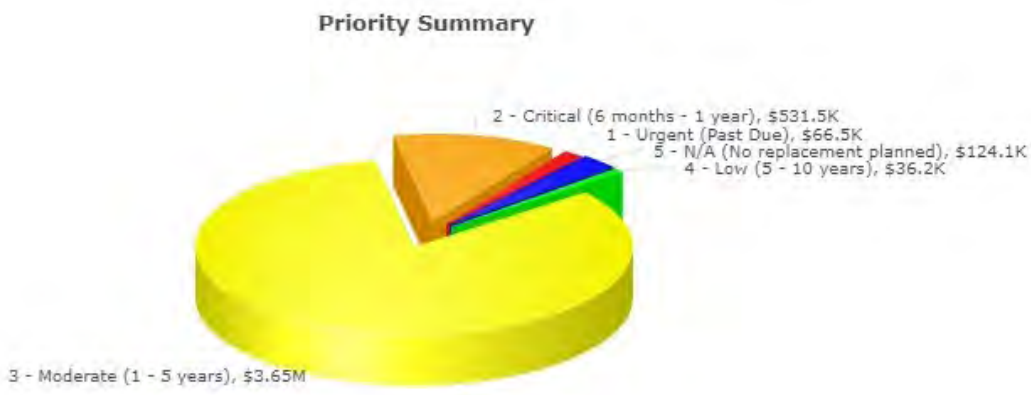


Figure 10 – Cost of Improvements by Priority

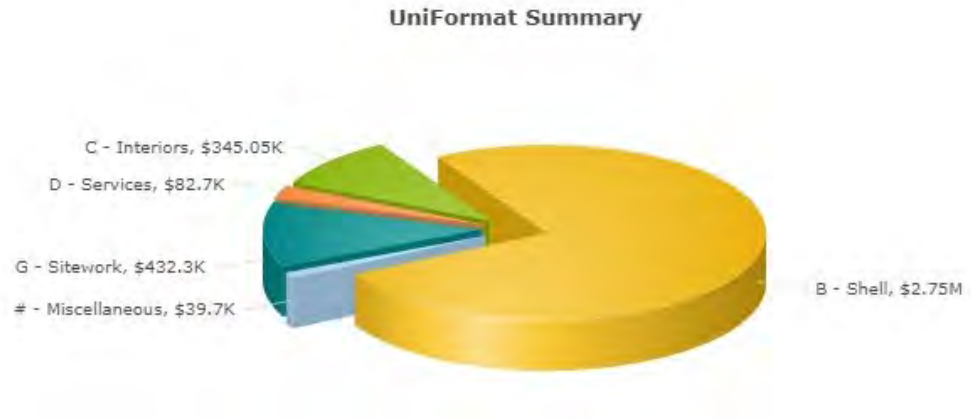


Figure 11 – Moderate Priority Recommendations

The site pavement has been evaluated and detailed in a study prepared by Abonmarche in 2018. This study outlined several improvements for parking and roadways. Some of these recommendations are included in a project currently under construction. In general, pavements are near the end of their useful life and numerous erosion issues should be addressed.

The building enclosure was evaluated by SME in 2020 and many water infiltration issues were identified. A series of patches and sealants can reduce water infiltration and preserve the building interiors for a time, but the long-term need is to remove roofing and siding to install proper weather cladding and sheathing underneath. The recommendations from this report and their associated costs were incorporated into the assessment database.

The mechanical systems are well-maintained, but some of the major pieces are at the end of their useful life. There is also some pipe corrosion occurring and the boilers are failing prematurely suggesting that there are some water quality issues in the building. A water quality test is recommended to determine if a water softener should be added or if a different chemical treatment is necessary. The chiller is also at end of life and should be planned for replacement in the next year or two.

The electrical system is operating reliably with recommended arc flash updates for the 1200A main electrical switchboard to comply with NFPA 70E. With several panels nearing full capacity, a load study is recommended for all future work involving increased electrical load.

Much of the lighting throughout the building is fluorescent with no or limited controls. Appreciable energy savings could be realized by updating all lighting to LED by either re-lamping existing fixtures with LED

lamps or replacing the entire fixture with an LED fixture and adding lighting controls that meet ASHRAE 90.1-2013. Location of the fixture, fixture type, owner preference, and the condition of the fixture housing all may assist in deciding on whether a re-lamp or complete fixture replacement is the best decision.

The current fire alarm system is not a voice fire alarm system as required by current Michigan Building Codes. Recommend replacing the existing fire alarm system with a new voice fire alarm system.

South Haven Campus

The South Haven Campus is 22 acres. The 41,000 square foot building was built in 2003. Figure 12 shows the cost of future improvements sorted by priority. This graph shows that there are a lot of improvements that will be required in the next 5 years. Figure 13 shows the types of improvements that are recommended in 1-5 years, most of these improvements are Sitework and building services. The biggest costs will be boiler replacement, lighting replacement and parking lot re-pavement.

Figure 12 – Cost of Improvements by Priority

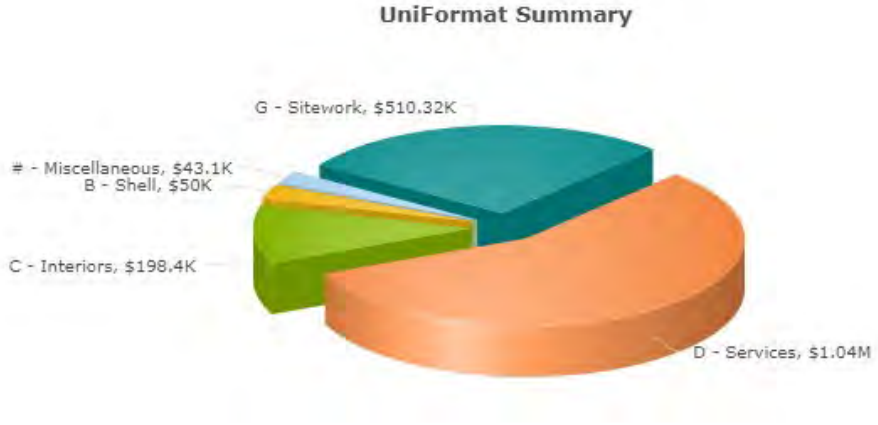


Figure 13 – Moderate Priority Recommendations

The site pavement has been evaluated and detailed in a study prepared by Abonmarche in 2018. This study outlined several improvements for parking and roadways. Some of these recommendations are included in a project currently under construction. Individual entries for parking and drives with costs for improvements have been entered based on this study and additional observations by Progressive AE. In general, pavements are near the end of their useful life and numerous erosion issues should be addressed. The main entry plaza has some cracks and salt damage. This should be reviewed and repaired annually with a plan to replace the plaza in 5 to 10 years.

The building has been well-cared for; however, some finishes, like carpet are nearing the end of life. Carpet in high-traffic areas like corridors and KidZone should be planned for replacement every 5 years. Classrooms should be planned for replacement every 10 to 15 years, depending on usage.

The building exterior has some issues with sealants and weeps that should be addressed to ensure the longevity of the building enclosure.

The building mechanical systems are running well, but heating and cooling equipment is approaching the end of life. Within the next 5 years, a planned replacement should be budgeted and scheduled to avoid the added cost and inconvenience to building programs of an emergency replacement.

The electrical system is in good condition with recommended arc energy and arc flash updates for the 1200A main electrical switchboard to comply with NEC 240.87 and NFPA 70E. The natural gas generator performs all functions according to maintenance reports and does not plan on being replaced at this time.

Most of the interior lighting in the building is fluorescent with many fixtures not working or having a low performance. Most exterior lighting for the building is fluorescent or high-pressure sodium. It is recommended to upgrade all lighting to LED fixtures or re-lamp with LED for appreciable energy savings. Location of the fixture, fixture type, owner preference, and the condition of the fixture housing all may assist in deciding on whether a re-lamp or complete fixture replacement is the best decision.

The facility staff also indicated that they are replacing lamps more frequently at the South Haven campus compared to other Lake Michigan College buildings, which may be attributed to a power quality issue. Lighting controls were present in some areas in the building; however, it is recommended to update lighting controls for the entire building with occupancy sensors, photocells and dimmers to meet the 2015 Energy Code to better increase energy efficiency.

The existing fire alarm system was installed in 2002 and is in good working condition with no known issues; however, the system is not a voice fire alarm system as required by the current Michigan Building Code. It is recommended to replace the fire alarm system with a voice fire alarm notification system.

Arc Flash

Nearly all the facilities evaluated had issues with arc flash labeling and reduction. Arc flash is a phenomenon when an electric current leaves its intended path and travels through the air from one conductor to another. In recent decades OSHA has identified arc flash as a risk near electrical panels and other electrical gear that should be identified and mitigated where possible.

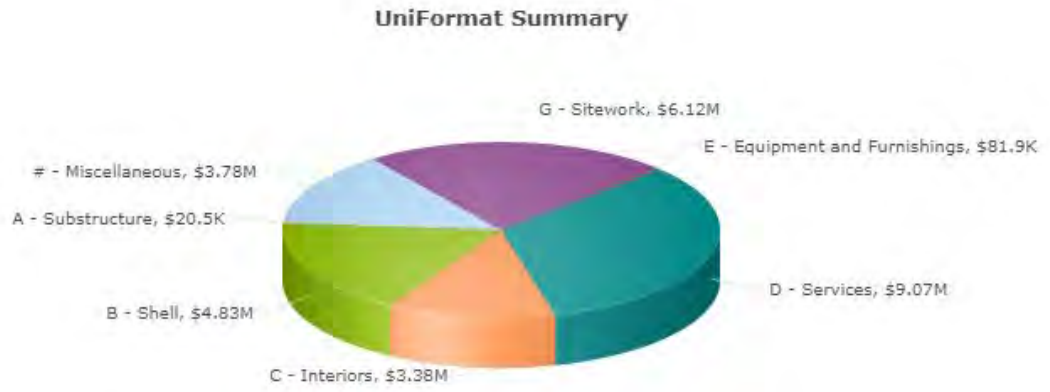
While employees are responsible for complying with safety-related work practices and procedures provided by the employer, arc flash labeling is the responsibility of the employer. In order to comply with the label requirement of NFPA 70E, labeling is required for any piece of electrical equipment that may need examination, adjustment, service or maintenance while energized, creating the potential for an arc flash incident to occur. An arc flash study should be performed if changes in the electrical system can influence the results or at intervals not to exceed five years.

Arc energy reduction was first introduced in the 2011 National Electrical Code, which was adopted by Michigan in 2013. The code section is regarding "the highest continuous current trip setting for which the actual overcurrent device installed in a circuit breaker is rated or can be adjusted is 1200 A or higher". Arc-energy reduction is designed to reduce the amount of arc-energy that may occur while a worker is servicing energized equipment. Under the Michigan Electrical Code, “Electrical systems lawfully in existence at the time of the adoption of this [Arc Energy Reduction] code shall be permitted to have their use and maintenance continued if the use, maintenance, or repair is in accordance with the original design and no hazard to life, health, or property is created by this electrical system as determined by the code". Although further action may not be required by code where existing systems were installed before implementation of the code and where no major electrical alterations have occurred since the arc-energy reduction is a safety precaution and it is recommended to add to systems where it is possible.

While this assessment has done a cursory look at arc flash considerations, a comprehensive arc flash study of all buildings is recommended to understand the full scope.

Project Expenditures

Summary of Costs



Appendix C –
Notable Space Updates and Future Space Needs

The College reviews space needs on an annual basis to align with programming needs. Over the last ten years notable facility changes include the following:

Benton Harbor Campus

- Constructed a two-story student center (Hawk's Nest) – with activity space on the lower floor and study space and conference room for use by student clubs on the second floor.
- Renovated the College café, supporting ability to offer a broader menu to students and increased seating capacity.
- Constructed 188-bed Beckwith Hall residence life facility, which opened to student residents in July 2014.
- Expanded Health Science facilities to upgrade Nursing classrooms and labs and support new EMT/Paramedic, Medical Assistant, Pharmacy Technology, and expanded CNA programming.
- Opened a new culinary education center in 2017 and then in 2020 moved into the new state-of-the-art culinary kitchen and restaurant teaching spaces at the Main Building to address increased demand and certification requirements.
- Added 43,400 GSF of space through the purchase of the Western Michigan University Southwest building in 2018, now called the Todd Center, which houses our Business, Computer Information Systems, and Teacher Education programs. The Todd Center includes (17) classrooms including (3) classrooms which open to a larger multifunctional meeting space, faculty and staff offices, café commons, and open study and collaboration space.
    - Retrofitted classrooms 1303 and 1309 including lab storage areas to accommodate the new Police Academy scheduled to begin summer 2025.
- The Wine & Viticulture Technology facility (Welch Center) is a new facility on the Benton Harbor Campus, which opened in 2019. The Welch Center includes (2) classrooms, faculty and staff offices, fully functional teaching winery, and open collaboration space.
- Modernized Mendel Center including an energy system retrofit replacing equipment near end of life was completed summer 2020.
- Remodeled the Mendel Center Hanson Theatre which supports the Visual & Performing Arts programs with new finishes, acoustics enhancements, and new house and stage lighting in 2019 and 2022.

- Retrofit two existing rooms to create Fitness Lab for students and employees, completed in February 2020.
- As part of the recent Main Building Renovation, the following components were completed in summer of 2020:
    - Renovated approximately 50 classrooms and 2 lecture halls with updated teaching technologies to improve distance education delivery, enhance active learning and student success, and better prepare students for the use of "real-world" technologies at work or in advanced studies.
    - Relocated faculty offices to be adjacent to student learning support spaces.
    - Co-located all health sciences disciplines into one central zone of C-Wing.
    - Right-sized classrooms for effective instruction using updated instructional technology.
    - Improved flow of student services to make processes clearer and enhance the student enrollment experience for first-time and non-traditional students.
    - Improved student learning environment by upgrading heating and cooling systems.
    - Created an Instructional Design & Teaching Technology to assist faculty with redesigning curricula, identifying and learning new instructional technologies, expanding and improving distance teaching and learning, and incorporating innovative technologies into the classroom.
    - Created new collaborative learning and engagement spaces that provide students with group study and classroom project preparation areas.
    - Developed an English as a Second Language and Writing Lab to support our diverse student body.
    - Addressed numerous student and employee safety and security concerns.
- Constructed and opened Hanson Technology Center Fall 2016, which houses:
    - Advanced Manufacturing and Welding programs, and
    - Fab Lab - open access digital fabrication studio and collaborative workshop. Provides access to information, tools/machines (including laser cutters, 3D printers, commercial sewing machines, vinyl cutters, woodshop, CNC router and hand tools), software and space for anyone who has an interest to learn and create.

South Haven Campus

- South Haven Public Schools – entered into partnership with local K-12 district for dual enrollment classes to be offered on South Haven Campus.

- Renovated space to provide a Certified Nursing Assistant (CNA) and Phlebotomy lab to allow program expansion to meet community needs.
- Renovated Biology and Chemistry labs.
- Constructed a Pearson Vue Assessment Center.
- Expanded the campus community room to support larger programming needs.

Future Identified Space Needs

The College is prioritizing for funding additional projects that support academic excellence, student success, the employee experience, and community impact. They include:

- Expansion of Career and Workforce Education programs, particularly in advanced manufacturing.
    - Develop pre-apprenticeship programming with K-12 partners through Bertrand Innovation Center (formally Niles Campus).
- Expansion of Health Sciences Education programs, including:
    - Renovation of existing space at the South Haven Campus to support Physical Therapy Assistant programming and natural sciences curriculum.
    - Renovation of the existing Benton Harbor space to expand health sciences program opportunities to include a new Respiratory Care program in partnership with Kalamazoo Valley Community College in the next 2 years. Respiratory Care is one of many, healthcare professions with a demonstrated staffing shortage within area healthcare organizations.
    - Renovation to existing space to expand and improve the Sonography and Radiolocation Technician programs. The renovation of existing space will allow the Sonography program to offer to additional program certificates which are an added value to program graduates and practicing sonographers in area healthcare organizations. Renovations for Radiologic Technology will enhance the program and allow students additional study /debrief space.
- Review of existing space at the South Haven Campus to identify opportunities for expansion of College enrollment, programs, and services to meet the workforce needs of the communities served by those campuses, such as Drone Piloting, Craft Brewing, and eSports Competition Space.
- Support partnerships with local K-12 district for dual enrollment classes to be offered on Benton Harbor Campus.

Appendix D – Campus Master Plans

October 2023

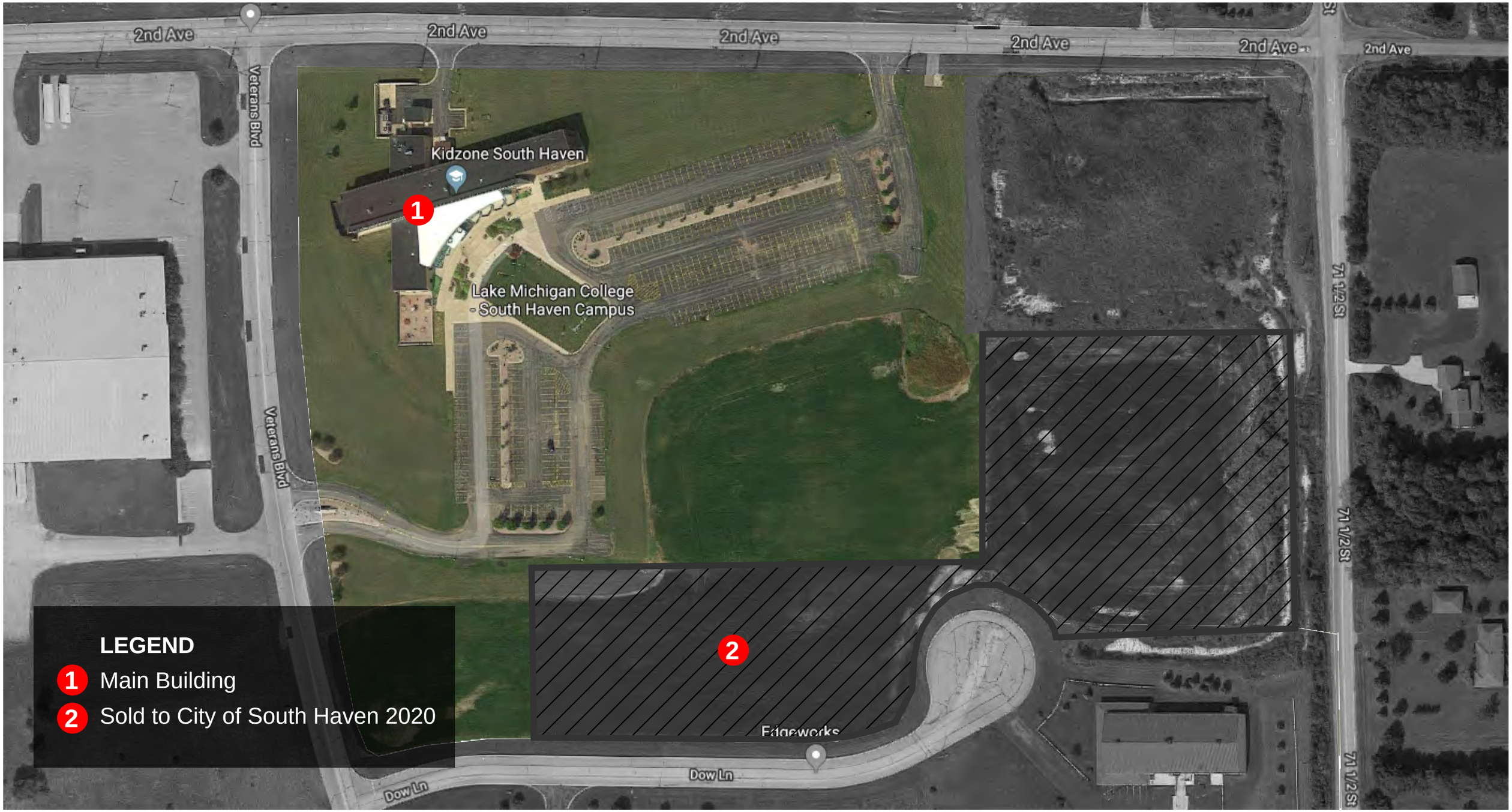
LEGEND

1. Main Building
2. Hanson Technology Center
3. Mendel Center
4. Beckwith Hall
5. Todd Center
6. Welch Center
7. Recreation Fields
8. Wetlands
9. Nature Walk
10. Existing Parking
11. Future Parking
12. Future Residence Hall
13. Future Development
14. Future Facilities Storage Bldg
15. Future Perimeter Road
16. Future Baseball & Softball Fields
17. Future Soccer Field & Walking Track

LAKE MICHIGAN® COLLEGE

Master Plan
Benton Harbor Campus

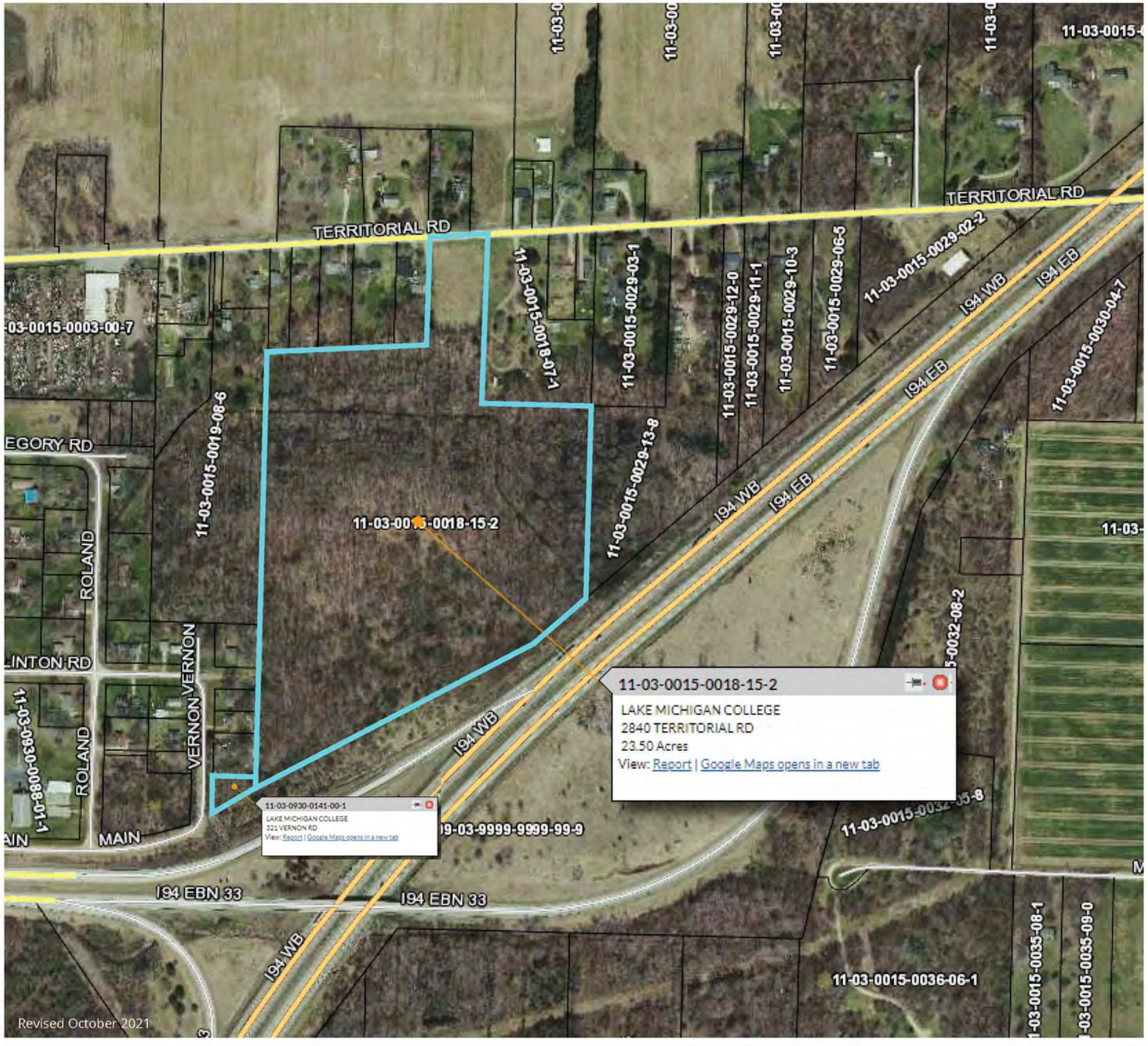
October 2023



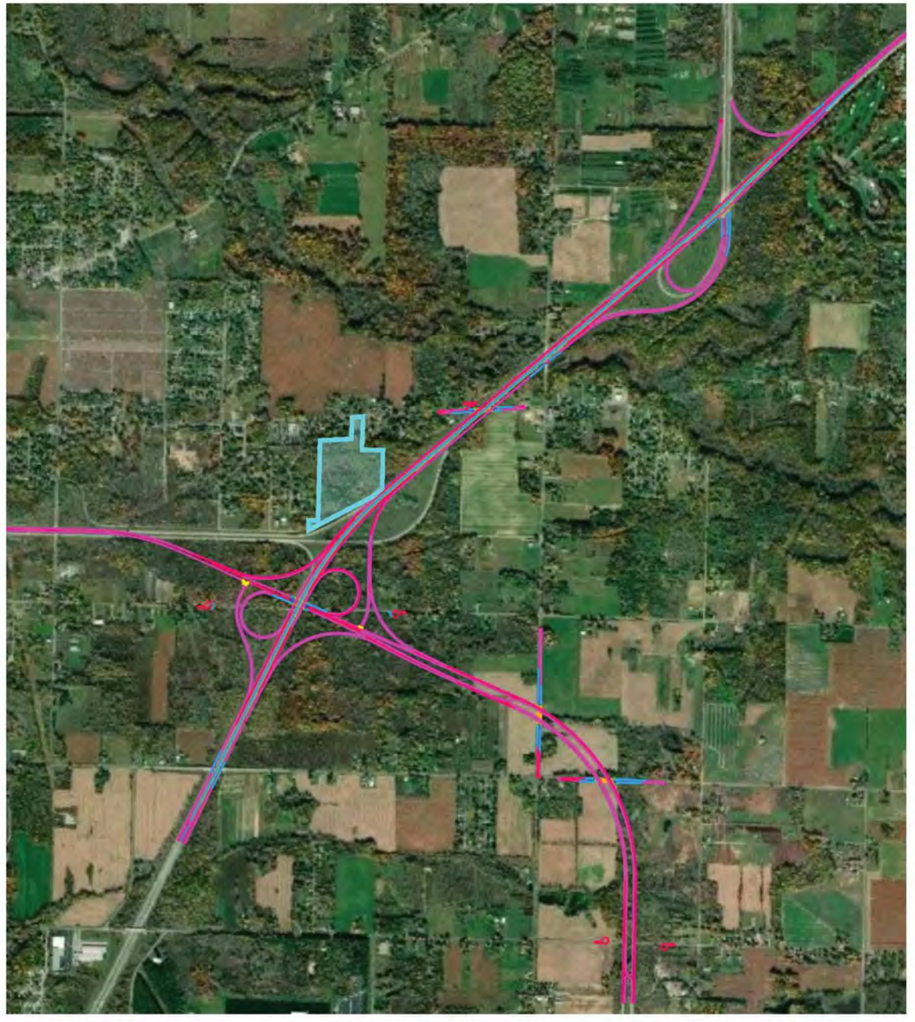
South Haven Campus Master Plan

LAKE MICHIGAN® COLLEGE

October 2023



2840 Territorial Rd & 321 Vernon Rd



Future Bi-Pass

LAKE MICHIGAN® COLLEGE

Appendix E – Information Technology Strategic Plan

Lake Michigan College

Information Technologies Strategic Plan 2025-2029

9-24-23

Table of Contents

Introduction

Information Technology is vital to the success of any organization and involves arranging the right mix of skilled individuals who share common objectives and defined processes to deliver services and solutions that support the mission of the College. Lake Michigan College is served by a dedicated team whose purpose is to deliver technology to students, faculty, and staff in an accountable and cost-effective manner.

Mission of IT

Together we empower people and communities to thrive through education, innovation, and experiences.

Primary Service Areas

IT has three areas in which it provides services and solutions for the College based upon the College Wide Goals of academic excellence, student success, and community impact.

- Service and Operations
- Enterprise Resource Planning (ERP)
- Institutional Research (IR)

Service and Operations

The Service and Operations Team supports the day-to-day operations of the College's Information Technology Services Department including:

- Support to students, faculty, staff through service-level agreement Policy and Procedure.
- Classroom technology
- Wired/wireless network support
- Campus printing support and computer lab maintenance
- Asset Management

- Manage on-premises and multi cloud operations including networking, servers, data storage and backup and recovery
- Information Technology Security
- Create a comprehensive Technology Communication Plan including maintenance periods, software upgrade schedule/testing plan, etc.
- Continue to create technology project roadmap
- Ensure security compliance for network and other technology solutions

Enterprise Resource Planning (ERP)

The Enterprise Resource Planning (ERP) team provides systems support, data administration and innovative solutions to meet the College's administrative business and student needs. The ERP team is responsible for ensuring the security and integrity of the College's Banner system and database, including.

- Banner
- Banner Self-Service
- Degree Works
- Automic
- MyLMC
- Other Enterprise systems

Institutional Research (IR)

The Institutional Research team provides leadership and support for data-driven decision-making that advances the vision, mission, and values of the college. Specifically, IR is responsible for:

- Collecting and analyzing data for internal and external reporting requirements
- Provides information to enable data-driven decisions that support student success and equity
- Provide data that is intentionally inclusive and focused on increasing the accessibility and timely use of data to continuously improve student outcomes
- Establishing and reporting on measures of institutional effectiveness
- Supporting continuous improvement of institutional outcomes and other measures of student success

- Supporting accreditation activities

IT Risk Management & Security

As the IT department works toward improving technology execution, Banner optimization, and Data Governance, risk and security are at the forefront of every decision. To maintain high standards that minimize risk, the IT department will work diligently to collaborate so a possible event that could cause loss/ harm or affect the ability to achieve objectives is minimized and mitigated early. The steps in dealing with risk include identifying the risk, analyzing the risk, and managing the risk. Areas covered in risk management include:

- Problem management
- Change Management
- Data Management
- Service Delivery
- Availability Management
- IT Service Continuity

FY23 Accomplishments

Despite the impact of COVID-19, the IT service and operations department accomplished multiple tasks over the course of the fiscal year. Some of the accomplishments include those listed below.

- Service and operations
    - Cisco IP Phone Refresh
    - Implement Automated Desktop Third Party Application Patching to provide continuously improved security for student experience (academic excellence and student success)
    - Microsoft Exchange Upgrade to better manage user accounts (student success)
    - Replace remaining soon to be EOS servers to new OS (academic excellence and student success)
    - Active Directory Domain Controllers Upgrades (academic excellence and student success)
    - Windows Certificate Authority Upgrade
    - Enterprise SAN replacement
    - Enterprise Backup solution migration to Veeam
    - Multifactor Authentication Enterprise rollout for faculty and staff
    - Continue ITIL Adoption

    - Increase of Bandwidth and Redundancy for AWS Cloud
    - Upgraded Windows Build
    - End of Life Hardware (academic excellence and student success)
    - Data Security Incident Response Plan Update
    - Hypervisor Migration from Hyper-V to VMware
    - Replace 70 Student loaner laptops (Student Success)
    - Domain Controller Upgrades

- Enterprise Resource Planning (ERP)
    - Federal Data at Rest Requirement
    - CPOS Implementation
    - Review Document Management solutions
    - Banner Ellucian Experience
    - DegreeWorks responsive dashboard rollout (academic excellence and student success)
    - Sunset Cobal in Banner
- Institutional Research
    - Continued Engagement with Dynamic Campus
    - Continue work on Data validation reports/ for clean-up data and definition of data entry standards (academic excellence and student success)
    - Integration of other source systems to the reporting environment, such as Degree Works, Target X, Survey Monkey.
    - Rebuild Core Reports on Refactored Reporting Environment.
    - Strengthen Data Governance program across the college
    - Begin compiling data dictionary and business glossary.

IT Mission and Strategy Roadmap

The following roadmap outlines the major initiative goals of the LMC IT department over the next five fiscal years. Each goal will be re-evaluated annually and adjusted as necessary.

FY24 Major Initiatives

- Service and Operations
    - Refresh Faculty and Staff PCs with new laptops, reducing number of devices on campus an creating a more mobile environment
    - Migrate 20% of remaining On-Prem Servers to AWS

    - Reduce Physical Servers by 12%
    - Wireless Controller Replacement
    - Wireless Access Point Replacements
- ERP
    - Sunset Banner 8 Self-Service
    - Refactor Tomcat Deployment Servers
    - Refactor Banner Security for more control over roles
    - Review/plan Banner Cloud strategy
    - Plan legacy custom app decommissions
    - Continual Banner Upgrades
- Institutional Research
    - Promote Data Literacy
    - Strength Data Governance program across the college
    - Rebuild Core Reports on Refactored Reporting Environment.
    - Implementation of predictive analytics.

FY25 Major Initiatives

- Service and Operations
    - Increase ITIL Maturity
    - Enhance ITSM Solutions
    - Align Project & Portfolio Management with IT Governance
    - Cloud-First Strategy: Migrate 20% of remaining on Premise Servers to AWS
    - Plan onsite virtualization and storage infrastructure Replacement
    - Reduce Physical Servers by 13%
    - Network Access Layer Replacement
    - Instructional Tech Projectors/monitor refresh
    - PC Refresh, classrooms
- ERP
    - Continual Banner upgrades and patching
    - Security updates and patching
    - Continued decommission of custom apps
- Institutional Research
    - Promote Data Literacy
    - Rebuild Core Reports on Refactored Reporting Environment.
    - Report automation for main data survey collection, such as IPEDS, CEPI, etc.

FY26 Major Initiatives

- Service and Operation
    - Plan for End-of-Life Hardware Replacements
    - Cloud-First Strategy: Migrate 20% of remaining on-Premise Servers to AWS
    - Network Core Layer Replacement
    - Edge Router Refresh
    - Firewall Refresh
    - Top of Rack Switch Refresh
    - PC Refresh for Staff/Misc offices/rooms
    - Server Refresh
- ERP
    - Continual Banner upgrades and patching
    - Security updates and patching
    - Continued decommission of custom apps
- Institutional Research
    - Data validation reports/ for clean-up data and definition of data entry standards (ongoing)
    - Full implementation of Data Governance across college.
    - Decommission Cognos reporting environment

FY27 Major Initiatives

- Service and Operation
    - Plan for End-of-Life Hardware Replacements
    - Replace On-premise Virtualization and Storage Infrastructure
    - Network WAN Layer Refresh
    - Core Switch refresh
- ERP
    - Continual Banner upgrades and patching
    - Security updates and patching
    - Continued decommission of custom apps
- Institutional Research
    - Review and rebuild Core Reports on Refactored Reporting Environment.

FY28 Major Initiatives

- Service and Operation
    - Plan for End-of-Life Hardware Replacements
    - Replace On-premise Virtualization and Storage Infrastructure
    - Staff/Faculty PC Refresh

- ERP
    - Continual Banner upgrades and patching
    - Security updates and patching
- Institutional Research
    - Review and rebuild Core reports
    - Ongoing Data Governance integration

FY29 Major Initiatives

- Service and Operation
    - Plan for End-of-Life Hardware Replacements for Access Points
    - Edge Router Refresh
    - Classroom PC Refresh
    - Student Loaner Refresh
- ERP
    - Continual Banner upgrades and patching
    - Security updates and patching
    - Review Banner Database Server updates (if do not move to cloud)
- Institutional Research
    - Review and rebuild Core reports

Conclusion

The IT Service department will track all progress via JIRA, our internal ticketing system. Doing so will allow for Key Performance Indicators (KPIs) to be reported showing progress in all areas mentioned above, as well as other areas of the IT Service department. Updates and progress of projects will also be shared via the employee portal to provide transparency.

Appendix F – FY 2025 Capital Project Request

No request is submitted for FY2025 by Lake Michigan College, as none of our priority projects qualify for State financial support.

Appendix G – Board of Trustee Approvals

Minutes – DRAFT UNTIL APPROVED AT NEXT SCHEDULED MEETING
Lake Michigan College
Board of Trustees Meeting
October 24, 2023

FIVE-YEAR CAPITAL OUTLAY PLAN - STATE OF MICHIGAN SUBMISSION
Annually, the State of Michigan requires all community colleges update their capital outlay plans and post on their respective college websites. Complying with this request allows community colleges to request and receive capital outlay grant funding.

ACTION:
We recommend that the Lake Michigan College Board of Trustees approve the submission of the FY' 25 Five-Year Capital Outlay Plan, as proposed.

VOICE VOTE

MOTION: By Mr. Weber with support from Ms. Johnson to approve the FY'25 Five-Year Capital Outlay Plan, as proposed.

In Favor:
All

Opposed:
None

APPROVED