



CAPITAL OUTLAY PLAN FY 2017 - FY2021

Updated November 1, 2015

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Introduction

For over 75 years, Henry Ford College (HFC) has been a leader in providing innovative education focused on student success. Located in Dearborn, Michigan, the school was originally named Fordson Junior College when it opened its doors in 1938. Later, the College adopted the name Dearborn Junior College in 1946. It became Henry Ford Community College in 1952, named after the Henry Ford Trade School which closed and whose assets were transferred to the Dearborn Public Schools Board of Education. In May 2014, the College was renamed Henry Ford College.

Henry Ford College is a comprehensive college providing both two and four year degrees. Educational opportunities for students include over 100 career and university transfer programs, pre-professional studies, associate's in science, associate's in applied science, and associate's in arts degrees, associate's in general studies, bachelor's in culinary arts, as well as certificates. The College website contains a complete listing of the over [100 academic programs](#) offered. During the 2013-2014 academic year, HFC served 20,931 students (unduplicated headcount) which is equivalent to 10,116 full-time students. The average age of HFC students is 26 and 36% attend full time.

Since its founding in 1938, HFC has been the gateway to higher education for thousands of students seeking affordable, high-quality post-secondary education. HFC is a comprehensive public college serving about 14,000 students each fall and winter semester in southeast Michigan. HFC is dedicated to preparing students for a rapidly changing world and workplace by offering more than 100 associate degree career and university transfer programs.

HFC offers high-quality, innovative programs to meet the educational and training needs of the region. Students prepare to transfer to a university or prepare to go directly to work. HFC also specializes in customized workforce development training for business and industry. HFC offers classes on two campuses situated in Dearborn. HFC's Main Campus is located on the southwest corner of Ford Road and Evergreen, north of the University of Michigan-Dearborn campus. The East Campus is home to HFC's Michigan Technical Education Center (M-TEC) and the state-of-the-art Nursing facility.

In May 2013, Dr. Stan Jensen assumed the presidency of HFC. Under his leadership, he steered the College out of a \$16 million budget deficit through various cost-savings measures, passed a millage, and re-focused efforts at the College on student success initiatives. HFC continues to be *Future Driven* and focused on contributing to the economic success of our students, the region, and the world.

I. MISSION STATEMENT

Mission: Henry Ford College transforms lives and builds better futures by providing outstanding education. As a student-centered, evidence-based college, our success is measured by the success of our students. We empower learners through the development of independent, critical and creative thinking, and we foster diversity, tolerance, understanding, and acceptance to prepare learners to succeed in a global society. We anticipate and respond to the needs of our stakeholders, exceed their expectations and serve the public good.

Vision: First Choice... Best Choice...

Values:

We have a **PASSION** for...

- teaching and learning;
- exploring diverse perspectives and ideas;
- creating a student-centered environment;
- transforming lives through continuous learning; and
- excellence in all that we do.

We demonstrate **INTEGRITY** through...

- accountability;
- responsible stewardship;
- ethical conduct;
- honest dialogue; and
- sustainable practices.

We promote **INGENUITY** by...

- being agile, flexible, and responsive;
- rewarding discovery, creativity, and innovation;
- collecting, evaluating, and acting on evidence;
- thinking critically; and
- continuously reimagining the future.

We show **RESPECT** for one another when we...

- collaborate and rely on teamwork;
- celebrate diversity and inclusiveness;
- maintain transparent practices;
- show compassion and empathy; and
- are engaged and committed to our shared work.

II. INSTRUCTIONAL PROGRAMMING

A. Describe existing academic programs and projected programming changes during the next five years, in so far as academic programs are affected by specific structural considerations

Programs being introduced in the next five years include Associate degrees and certificates in **welding, tool & die, transportation, distribution, and logistics, and mechatronics**. These program improvements require high tech classrooms and laboratories that are supported by a robust technological infrastructure. Henry Ford College is submitting a capital outlay project request for FY17 in order to continue development of major academic initiatives described below.

HFC's Center for Innovative Manufacturing Education (CIMed)

Project Purpose: To create a Student Centered, Curriculum Led, and Instructor Assisted Flexible Learning Environment

This new delivery model will increase HFC's ability to leverage lab resources to assist regional businesses with training and educational opportunities. The flexibility, delivery method, reduced equipment numbers, faculty expertise, and integration concepts embedded in design of curriculum are the cornerstone of the Industrial Technology and Engineering Technology programs. These attributes offer a tremendous strategic advantage to HFC in marketing new training opportunities to businesses. HFC, through the flexible learning environment, will become the partner of choice in training for local manufacturing enterprises.

Vision - A center of manufacturing educational excellence creating flexible, high-quality, and learning-centered pathways to student success and empowerment.

Mission - To engage and educate our manufacturing community through teaching and learning opportunities that are flexible, effective, relevant and evidence-based.

Goals - Our goals are to develop, implement, assess, and improve the following:

1. *Learning environments* that incorporate flexible and customizable delivery systems that meet the needs of the community and are right for our students. The Learning Environment will be Student-Centered, Curriculum-Led, and Instructor Assisted.
2. *A culture of evidence* that supports empowerment, innovation, current practice and accountability, in order to promote student success.
3. *Quality learning* opportunities that improve student learning and success and continuously improve our educational programs and curriculum.

4. *Learning Culture* that integrates the design of facility and lab environment (SuperLab), equipment, curriculum, e-learning, programs, and courses that foster innovative delivery mechanisms in the following ways:
- Competency-based with multiple delivery methods
 - Authentic student assessment
 - Multiple learning paths – through lab, equipment, books, videos, discussions, seminars, experimentation, exploration, discovery, research, e-learning, apprenticeship, internship, and one on one interaction with instructor
 - Flexibility of delivery via SuperLabs

Project Scope

HFC will develop a flexible learning environment that is able to respond to the learning needs of the individual student and industry demand. The main concept is to maximize flexibility for our learners by delivering student-centered, curriculum-led, instructor-assisted, flexible, self-paced, course offerings in an open-lab format so learners of multiple programs can share equipment, space, and lab time to maximize learner flexibility and be more responsive to the needs of business and industry. We are asking for financial support to renovate/build an addition to the existing technology facility that is needed in order to implement these objectives within our manufacturing programs.

How does the project enhance the core academic mission of the institution?

This new flexible learning environment combines the best of e-learning, flipped classroom, in-class instruction, and open lab environment to create a new learning environment for students. The open-entry/open-exit, self-paced program provides courses that are available at any time for students and company partners. Companies will be able to purchase custom training from a list of single credit courses and can schedule training times custom fit to their needs. The flexible learning environment provides custom and individual learning in the form of seminars, certificates, credit courses, and degree programs.

How does the project support investment in or adaptive re-purposing of existing facilities and infrastructure?

The CIMed would be housed in a facility capable of housing several Super Labs. The current technology building is the logical location for re-purposing and/or an addition.

The facility would have the following attributes:

- All learning/lab stations are in visual view of each other and the instructor desk.
- Equipment would be organized as “Centers of Technology” to create an environment of collaboration and teamwork.

- Learning and lab stations are designed for open-flexible use with appropriate course learning module.
- Common instructor desk area, testing area, resource area, and lab facility support area.

The college has funded the implementation of four state-of-the-art lecture capture recording systems and two lab-based recording systems that can be used for the creation of learning modules and other methods. These systems will allow us to record our classroom environment including student interaction, questions, and instructor activities. This will allow us to stream this content and embed these lectures into our CMS (course management system) for use by students.

Henry Ford College will use our existing presentation-capture systems to develop the alternative delivery system described in this project. These systems are capable of developing presentations that incorporate audio, video, multimedia, and other sources publishing them in a variety of delivery formats. We will leverage this system to create topical learning modules that will complement the curriculum developed by the DOL consortium and AMTEC. The final edited version of this topical learning module will consist of e-learning content incorporated within an online course management system. It is our intention to create multiple modes of delivery.

This open lab approach is easily scalable as enrollment increases. By either adding to the number of hours the lab is available or increasing the equipment count, we can easily scale our lab availability to suit student needs. With the construction of flexible-delivery laboratories, time and distance barriers should be limited, and students will be able to interface with an instructor and complete lab assignments when it fits their schedules.

HFC has submitted a National Science Foundation grant to develop a comprehensive set of tools to facilitate the implementation of an “Improved Competency-Based Education (CBE) Process Model” that employs Common Performance-Based Objectives (C-PBOs) through a comprehensive **Open Lab Platform (OLP)**.

This work builds upon previous Federal grants, including:

1. **NSF-ATE Automotive Manufacturing Technical Education Consortium (AMTEC)**
National Center of Excellence,
2. **Trade Adjustment Assistance and Community College and Career Training program’s (TAACCCT) Multi-State Advanced Manufacturing Consortium (M-SAMC) project, and**
3. Additional NSF projects.

These developed the first generation of the *Manufacturing Education Process Model* that provides students with the necessary skills for careers in advanced technological manufacturing. This model employs competency-based learning within a next generation OPL where faculty and employers are able to assess student progress in real-time and

students can access learning at any time. Within the OLP, HFC will employ a series of C-PBOs that will leverage HFC's Center for Innovative Manufacturing Education (CIMed) to encourage collaborative work and promote stackable credentials. The model utilizes multiple competency-based course modules, utilizing multi-module model delivery and emphasizing project-based learning combined with authentic assessment, in a flexible/open learning environment. An Education Innovation Toolkit (EIT) will also be developed and increase HFC's ability to produce and scale the Improved CBE Process Model beginning with advanced manufacturing (Welding and Multi-Skilled Maintenance), then migrate to other STEM related programs that increase student preparedness, graduation rates and **employability in advanced manufacturing.**

B. The unique characteristics of HFC's academic mission include:

- **Ninety-two associate degree** and **forty-five certificate programs** in career and technical fields.
- **Seventeen areas of study** and **nineteen associate degree** programs to serve the needs of transfer students.
- HFC has launched two new **early college/dual credit academies** in cooperation with Ford Motor Company. The first is a collaboration with the Downriver Career and Technology Consortium and Ford Motor Company's Flat Rock Assembly Plant. The second is our second on campus Henry Ford Early College – Advanced Manufacturing in collaboration with Dearborn Public Schools and Ford Motor Company's Next Generation Learning initiative.
- HFC has established partnerships through the **Biotechnology Program** that include internships in biotechnology laboratories that are required for students in our Biotechnology AAS Program; HFC has many partnerships with regional employers, including Enzo Life Sciences, NSF International, and Wayne State University.
- In addition, HFC has become the first **Project Lead the Way** community college in the State of Michigan and is pursuing an Engineering Academy with Dearborn Public Schools. These programs are built on a strong dual enrollment relationship with our local school district.
- A strong connection to **twenty-nine local school districts**. Dual enrollment and career exploration opportunities are available to high school students to help prepare them for post-secondary education and the world of work including the Henry Ford Early College and Collegiate Academy.
- **Articulation agreements** with Chamberlain University, Chancellor University, College for Creative Studies, Eastern Michigan University, Ferris State University, Madonna University, Siena Heights College, University of Michigan-Ann Arbor, University of Michigan-Dearborn, and Wayne State University ensure transfer students experience a seamless transition to these colleges and universities.
- A **University Center** including partnerships with Eastern Michigan University, Madonna University, Sienna Heights and development of three additional partners to offer four year degrees on the HFC campus.
- **Workforce development training** including customized on-site training for many regional companies at the Ford Michigan Assembly Plant and Severstal North America. Working with a consortium of colleges, HFC assisted with the development of the **AMTEC training program for auto**.
- Most recently, HFC was award a **Department of Labor grant** to develop a new learning paradigm that integrates competency-based learning into training and educational modules to enhance employee training programs for companies and colleges.
- The College is in its third year in collaboration with the **Detroit Scholarship Fund (DSF)**, putting in place retention and success initiatives that encourage completion among HFC students who are DSF recipients.

- The Office of **Military and Veterans Services** offers assistance to help veterans as well as active military and their families enroll and succeed at HFC.
- **Assisted Learning Services** provides accommodations to students with disabilities through a number of support services. A Center for Teaching Excellence and Innovation for teacher development.
- HFC's radio station, **WHFR 89.3**, provides a real-world lab experience in telecommunication for HFCC students, to serve the needs of Dearborn and the surrounding communities.
- An **English Language Institute** that offers intensive preparation in English for English Language Learners, allowing them to move directly into college-level academic programs.
- An innovative, cutting-edge **developmental education program**, with a robust Learning Lab dedicated to student success, to develop the essential reading, writing, and quantitative literacy skills of students.
- A **Center for Teaching Excellence and Innovation** for teacher development.
- **Community engagement** including plays and concerts, hosting fund-raising activities for scholarships, open lecture and film series, conference and convention facilities, and dining facilities.

C. Identify other initiatives which may impact facilities usage

Stemming from the HFC Strategic Plan, which can be found at the following objectives will impact facilities usage:

1. Develop new and revise existing programs to meet the expectations of the workforce including flexible, **innovative manufacturing education environments**.
2. Expand HFC degrees to include a **Baccalaureate Degrees** as opportunities become available (e.g. BA Nursing).
3. Create and expand local, regional, national and international partnerships and collaborations with business, governmental, non-profit, and educational institutions to create a **global institution**.
4. Develop and deliver **technology** training based on the assessed needs of students, faculty, and staff.
5. Ensure that the College's physical facilities, equipment, and technological **infrastructure** support fulfillment of the College's mission.
6. Promote **sustainability** and environmentally sound policy in facilities resource planning.

D. Demonstrate economic development impact of current/future programs

The 2015 study conducted by Economic Modeling Specialists, Intl., Figure 1, provides data strongly supporting the fact that the College has a significant impact in promoting economic development, enhancing students' careers, and improving quality of life.

FIGURE 1

Fact Sheet

Demonstrating the Economic Value of Henry Ford College

July 2015

Henry Ford College (HFC) creates a significant positive impact on the business community and generates a return on investment to its major stakeholder groups — students, society, and taxpayers. Using a two-pronged approach that involves an economic impact analysis and an investment analysis, this study calculates the benefits to each of these groups. Results of the analysis reflect Fiscal Year (FY) 2013-14.

Income created by HFC in FY 2013-14 (Added income)

\$110.3 million Operations spending impact
\$1.9 million Impact of student spending
\$712.7 million Alumni impact
\$825 million Total impact

Impact on Business Community

During the analysis year, HFC and its students added **\$825 million** in income to the HFC Service Area economy, approximately equal to 0.6% of the Gross Regional Product.

The economic impacts of HFC break down as follows:

Operations spending impact

- HFC employed 1,154 full-time and part-time employees in FY 2013-14. Payroll amounted to **\$73 million**, much of which was spent in the HFC Service Area to purchase groceries, clothing, and other household goods and services. The college spent another **\$49.2 million** to support its day-to-day operations.
- The net impact of college payroll and expenses in the HFC Service Area during the analysis year was approximately **\$110.3 million** in added income.

Impact of student spending

- Around 4% of students attending HFC originated from outside the region. Some of these students relocated to the HFC Service Area and spent money on groceries, transportation, rent, and so on at regional businesses.
- The expenditures of students who relocated to the region during the analysis year added approximately **\$1.9 million** in income to the economy.

Alumni impact

- Over the years, students have studied at HFC and entered or re-entered the workforce with newly-acquired skills. Today, thousands of these former students are employed in the HFC Service Area.
- The accumulated contribution of former students currently employed in the regional workforce amounted to **\$712.7 million** in added income during the analysis year.

Job equivalents based on income

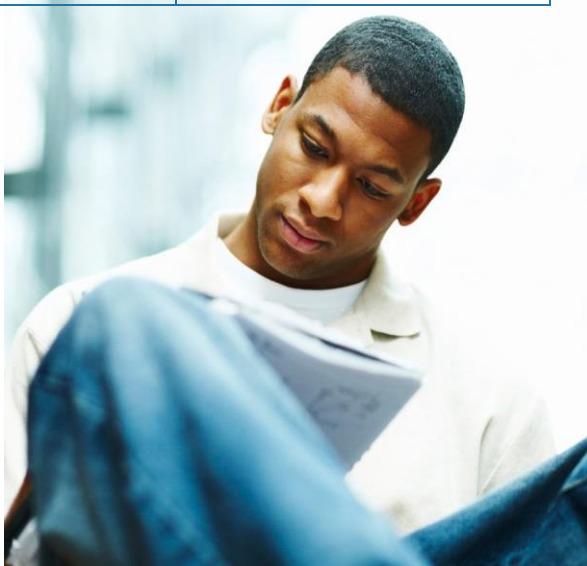
Job equivalents represent full- and part-time jobs that would not have occurred in the region without the college. They are calculated by jobs to sales ratios specific to each industry. Based on the added income created by HFC, the job equivalents are as follows:

- Operations spending impact = 1,600 job equivalents
- Impact of student spending = 60 job equivalents
- Alumni impact = 11,275 job equivalents

Overall, the added income created by HFC and its students supported 12,935 job equivalents.

For every \$1 spent by...

Students	\$3.40 Gained in lifetime income for STUDENTS
Society	\$9.30 Gained in added state income and social savings for SOCIETY
Taxpayers	\$6.10 Gained in added taxes and public sector savings for TAXPAYERS



Return on investment to students, society, and taxpayers

Student perspective

- HFC's 2013-14 students paid a total of **\$27 million** to cover the cost of tuition, fees, books, and supplies. They also forwent \$136.6 million in money that they would have earned had they been working instead of learning.
- In return for the monies invested in the college, students will receive a present value of **\$557.8 million** in increased earnings over their working lives. This translates to a return of **\$3.40** in higher future income for every \$1 that students invest in their education. The average annual return for students is **13.9%**.

Social perspective

- Society as a whole in Michigan will receive a present value of **\$2.5 billion** in added state income over the course of the students' working lives. Society will also benefit from **\$37.2 million** in present value social savings related to reduced crime, lower unemployment, and increased health and well-being across the state.
- For every dollar that society spent on HFC educations during the analysis year, society will receive a cumulative value of **\$9.30** in benefits, for as long as the 2013-14 student population at HFC remains active in the state workforce.

Taxpayer perspective

- In FY 2013-14, state and local taxpayers in Michigan paid **\$39 million** to support the operations of HFC. The net present value of the added tax revenue stemming from the students' higher lifetime incomes and the increased output of businesses amounts to **\$227.8 million** in benefits to taxpayers. Savings to the public sector add another **\$10.3 million** in benefits due to a reduced demand for government-funded services in Michigan.
- Dividing benefits to taxpayers by the associated costs yields a **6.1** benefit-cost ratio, i.e., every \$1 in costs returns \$6.10 in benefits. The average annual return on investment for taxpayers is **21.9%**.

III. STAFFING AND ENROLLMENT

A. Describe current full and part-time student enrollment levels by academic program and define how the programs is accessed by the student

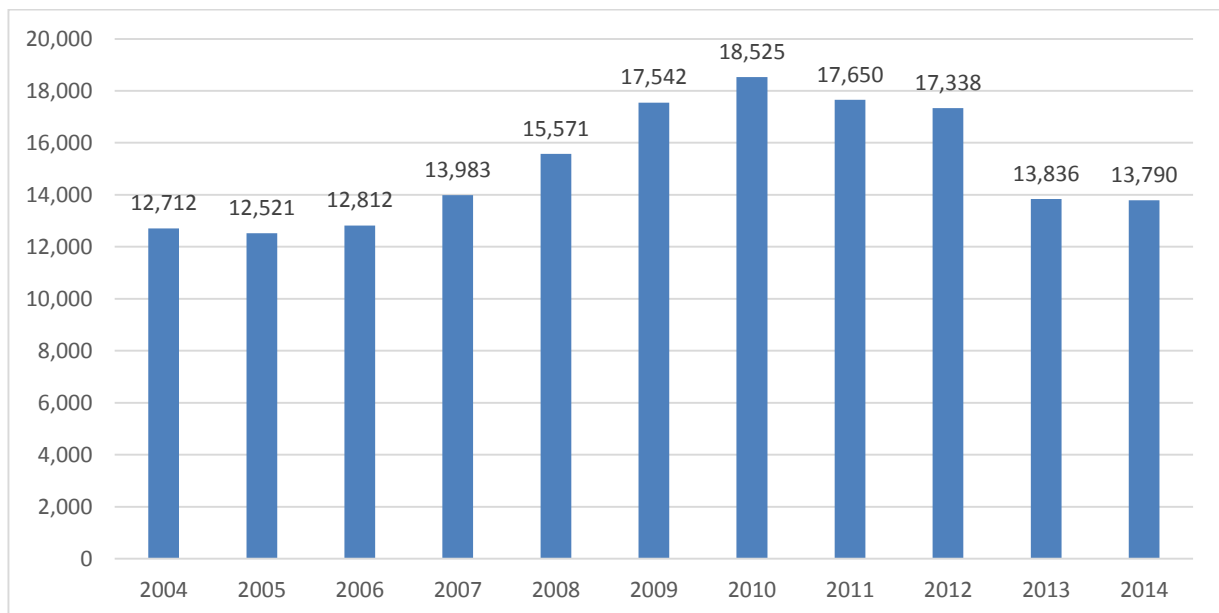
In-district enrollments (serving the City of Dearborn and parts of Dearborn Heights) comprise approximately 27% of the unduplicated headcount. Out-of- district enrollments represent approximately 73% of overall enrollment.

The majority of academic programs are accessed through on-campus instruction at the main campus. The nursing program is located at the East Campus. On-line courses have increased and account for approximately 10% of sections offered. Training programs for business and industry are provided either at the worksite or at the M-TEC.

B. Enrollment Patterns over the last five years & projected enrollment pattern for the next five years

Enrollment trends state-wide in community colleges showed increases from 2008 through 2010. HFC had been fortunate to participate in this upward trend and served 18,525 students in the **Fall semester** of 2010. From the start of the growth period, 2006, through fall of 2014, students increased from 8,598 to 13,331 for an increase of 55%. Since that time, enrollment has declined consistent with the inverse relationship enrollment has with the rebound of the national economy. Table 1 below illustrates Fall HFC enrollment over the period of 2004 – 2014.

TABLE 1
HFC FALL ENROLLMENT, 2004-2014
AS REPORTED TO IPEDS



HFC is breaking new ground in meeting the needs of students in terms of customer satisfaction as well as degree completion. Agreements with transfer colleges and universities, training and retraining programs, and an emphasis on distance education will be a few of the strategies used to grow and create new programs and services. Programs will be made more accessible by offering more flexible scheduling of classes, including weekend College programs, and by offering more courses and ultimately programs on-line.

Despite the expected decline in enrollment due to the strength of the economy, HFC is making significant efforts to mitigate the decrease by increasing marketing and recruitment efforts, including international and global relationships which will increase enrollment, and revising policies and procedures to enhance the student experience at HFC. For example, in the fall of 2014, a **course offering guarantee** was instituted such that sections advertised in the course offerings schedule will be guaranteed to run.

An emphasis on recruitment and retention efforts will remain strong and environmental scanning efforts will ensure that the College continues to offer programs that meet the needs of students and the community.

C. Provide instructional staff/student and administrative staff/student ratios for major academic programs

In the nursing program, the faculty to student ratio is about 1:26 and the administrative staff to student ratio is about 1:176. For the health careers programs, the faculty to student ratio is about 1:28 and the administrative staff to student ratio is about 1:140. In the computer information systems program, the faculty to student ratio is about 1:25 and the administrative staff to student ratio is about 1:166.

D. Project future staffing needs based on five year enrollment estimates and future programming

Based on enrollment projections, it is estimated that the total number of adjunct faculty will shrink as the total number of sections declines in certain area. However, with the addition of new programs, it will be necessary to continue to attract highly qualified full-time faculty in high demand areas including culinary arts, manufacturing and health careers.

E. Identify current average class size and projected average class size based on institution's mission and planned programmatic needs

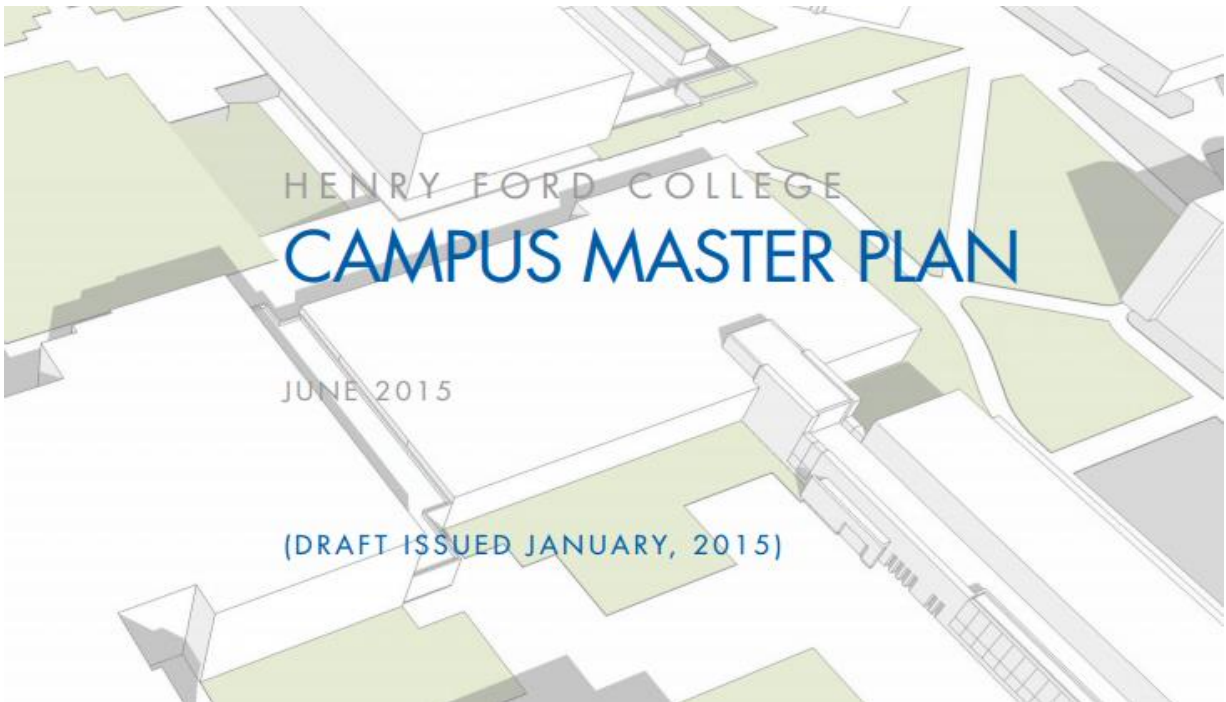
It is the policy of the College that the minimum class size is fifteen students. The average class size is twenty-six students. This, of course, varies according to the nature of the program or type of course. For example, it is appropriate that certain types of general education courses seat thirty students per section. However, more difficult courses or technical courses that require particular labs are appropriately run with fewer students. At times, a class of less than fifteen students is offered if a group of students need a course during a particular semester in order to graduate.

No change is projected to this policy or average class size. It is the mission of the community college, in general, and Henry Ford College, in particular, to offer small class sizes. This aspect differentiates the community college from the four year university where a class size of 100 is not unusual. Henry Ford College students are promised more individual attention from faculty and support services.

IV. Facility Assessment

A professionally developed comprehensive facilities assessment is required.

Henry Ford College engaged Stantec, Inc. (formerly SHW) to facilitate the Master Facilities Planning process which included a facility assessment, utilization plan, and updated master plan. This initiative supports HFC's mission and [strategic plan](#) by ensuring the College provides an outstanding environment in which to deliver high-quality academic programs.

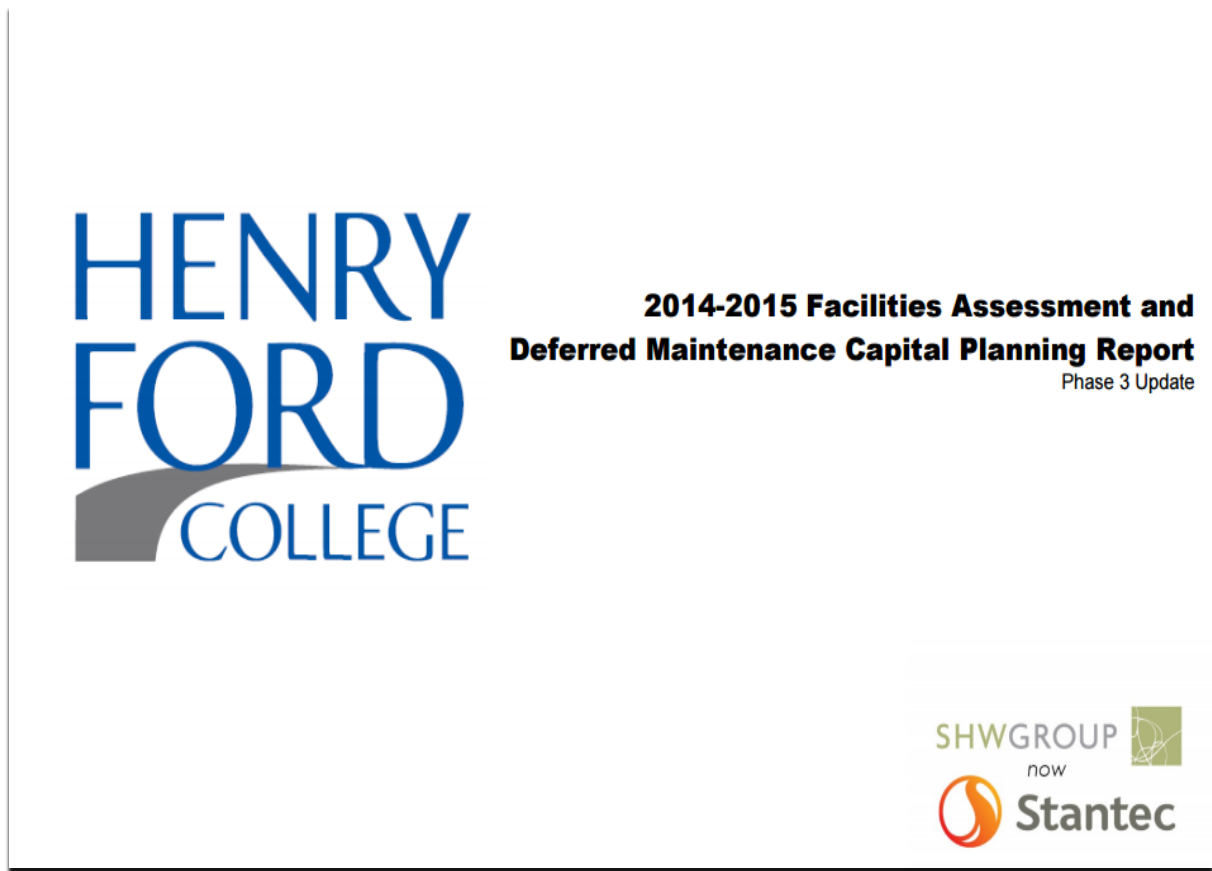


[HENRY FORD COLLEGE CAMPUS MASTER PLAN 2015](#)

COMPREHENSIVE FACILITY ASSESSMENT:

Click on the link or report icon below to review the comprehensive facility assessment in accordance with categories outlined in “net-to-gross ratio guidelines for various building types,” DMB-Office of Design and Construction Major Project Design Manual, appendix 7.

[2014-2015 FACILITIES ASSESSMENT & DEFERRED MAINTENANCE CAPITAL PLANNING REPORT](#)



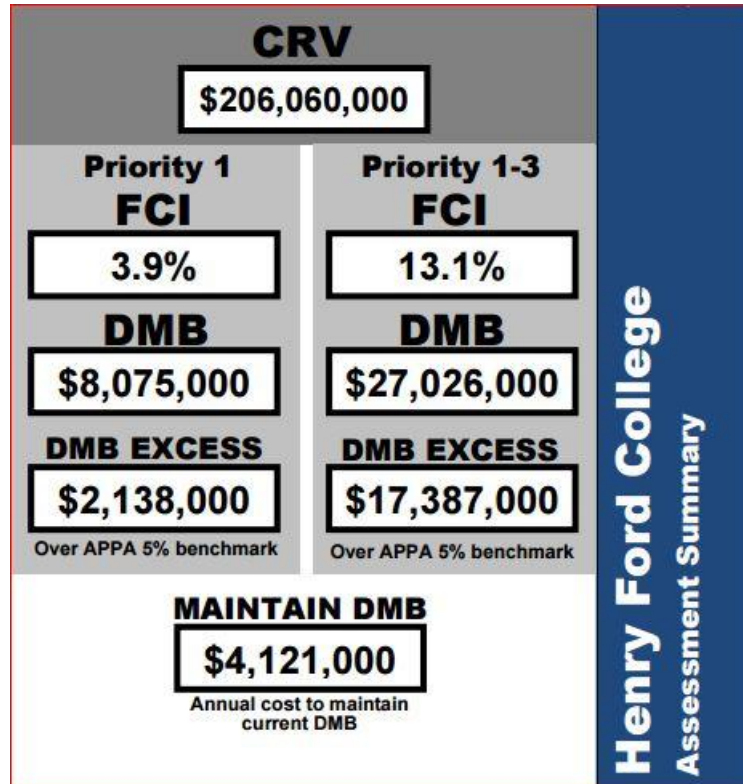
The HFC Facilities Assessment of over 750,000 square feet and 206,000,000 replacement value has yielded a Facility Condition Index (FCI) of **POOR (FCI > 10%)** with respect to **Priority 1-3**. That is, the total value of projects that will require attention within the next five years including those that require immediate attention in order to maintain facilities and related infrastructure for safe use. The buildings identified as having significant issues include the Library, Bookstore, and the Technology, Liberal Arts, and Physical Fitness buildings.

HFC BUILDING CONDITION



KEY	
Green square	FCI < 5% Good
Orange square	FCI 5% - 10% Fair
Red square	FCI > 10% Poor
Grey square	To Be Assessed

The Current Replacement Value (**CRV** is the cost to construct a replacement building in today's dollars), the Deferred Maintenance Backlog (**DMB**), and the Facility Condition Index (**FCI**) (DMB/CRV) is shown below:



CLASSROOM UTILIZATION

Detailed information regarding classroom utilization can be found on pages 52-54 of the [Master Plan](#).

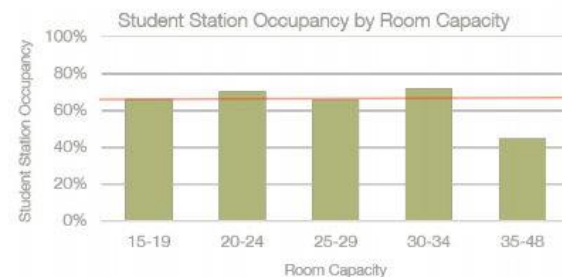
CLASSROOM UTILIZATION

Of the 120 classrooms on campus, the majority are located in the Liberal Arts building. Built in 1963, this building is generally perceived to be in poor condition and badly in need of infrastructure, finish and layout improvements. Of the classroom spaces on campus, those located in the Liberal Arts building are on average undersized, coming in at 21 Assignable Square Feet per Student Station (ASF/SS), as compared to the target of 22-48 ASF/SS.

Building	Number of Rooms	Total Area	Average ASF/SS	Average Weekly Seat Hours	Average Weekly Room Hours	Student Station Occupancy
ATHL	2	2,015	47	27.7	32	82%
FA	8	5,350	31	19.8	22	90%
HCEC	21	18,072	26	20.5	30	67%
LA	57	35,167	21	22.8	32	73%
IRC	1	712	40	27.8	38	74%
SC	2	1,785	43	11.3	25	42%
SCI	7	7,678	26	15.7	36	48%
TECH	22	16,705	32	10.9	19	59%
Total	120	87,483	26	19.6	29	69%

Classrooms included in this study averaged 29 Weekly Room Hours across the campus, with an average Student Station Occupancy of 69%. Classrooms with smaller capacity are used less frequently during the week, but have a higher occupancy rate when they are scheduled. The larger rooms were used more frequently, but with a lower occupancy rate. These averages are not too far off from the target Weekly Room Hours of 32 and Student Station Occupancy of 65%.

Additionally, with an average 26 Assignable Square Feet per Student Station (ASF/SS), HFC is well within the target range of 22-48 ASF/SS, although at the low end of that range. This wide range allows for different types of classrooms with different furniture needs and set ups, with the smaller end of the range being appropriate for lecture halls with fixed seating, and the larger end being geared towards flexible classrooms with movable furniture.



1. 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.)

In the science program, laboratories must meet standards set by the Department of Transportation (chemical labeling), OSHA (workplace safety) and the EPA (chemical disposal). Chemicals are handled according to prudent practices for academic chemical laboratories, with emphasis on pertinent local, state, and federal regulations. All faculty go through yearly lab safety training.

The Science Division has a part-time chemical lab technician who is in charge of chemical inventories and lab safety. Standardized inventory and labeling have been implemented to comply with workplace safety and chemical labeling regulations.

The technology programs that teach the use of industrial machinery follow OSHA regulations such as those requiring personal protective equipment, machine guards, and designation of operator areas.

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

Programs being introduced in the next five years include Associate degrees and certificates in **welding, tool & die, transportation, distribution, and logistics, and mechatronics**. These program improvements require high tech classrooms and laboratories that are supported by a robust technological infrastructure. Henry Ford College is submitting a capital outlay project request for FY17 in order to continue development of major academic initiatives described below.

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

A report provided by R. A. Schettler, Inc., listing the Replacement Value New and the Sound or Depreciated Value of all buildings at HFC (dated 12/2011) and is included in Appendix C. Building age and size data is included in Appendix D.

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

The current systems provide sufficient heating, cooling, ventilation, and other utilities to meet occupant needs under most operating conditions. However, the Facilities Assessment and Deferred Maintenance Capital Planning Report has identified **major issues in life expectancy and potential immediate system failures**.

See [Facilities Assessment & Deferred Maintenance Capital Planning Report](#).

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

The College has completed the redesign and reconstruction of all parking lots at the Evergreen site. This includes a new storm water improvement system that significantly benefits the Rouge River which receives storm water runoff. Additional investment in 2014 and 2015 was made in sealing and preventative maintenance of the parking lots of both the Main and East Campuses. Extensive upgrades and repairs of concrete walkways were made in 2014 and 2015 at both Main and East Campus. Included in Appendix E is the listing of building repair priorities.

6. **Adequacy of existing utilities and infrastructure systems to current and five-year projected programmatic needs**

The electrical system at the Evergreen site includes many components that—after more than forty years of use—have exceeded their useful life. A plan was developed to replace much of this infrastructure and to convert from 4800-Volt to

13.2 Kilovolt feeders as recommended by the local electricity provider. The electrical project related to the North Loop feeder is in process. To date, 65% of the North Feeder loop has been upgraded to 12.2 kva with an additional section covering the Facilities Building and Powerhouse to be upgraded in Spring of 2016/

The College commissioned a study to evaluate the central boiler plan. Options are being analyzed to replace burners, upgrade the piping system, and install heat recovery for the boiler stacks. Commission testing of the boilers will ascertain remaining useful life.

7. 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?

There is opportunity for improvement in the area of energy use/efficiency. A subcommittee comprised of facility personnel as well as faculty in the Energy Technology Program has been formed to investigate the potential for savings under performance management contracting.

The College's enterprise-wide energy plan depends largely on the age of the building and the details of their particular heating/cooling systems as follows:

- Construction/renovation to current energy code standards. This applies to the renovated science building (2011) as well as the new addition to the Science Center (2012), the Welcome Center (2012), and the School of Nursing (2009).
- Retro-commissioning of relatively new buildings with modern controls as funds become available. These include the Heath Careers Education Center (1999) and the M-TEC building (1999).
- Retro-fitting of temperature controls for the Administrative Services and Conference Center (1979) as funds become available.
- Major renovation of older buildings including complete renovation of mechanical systems as is being considered for the liberal arts building (1960).
- Renovations of buildings and rooms include the use of low energy LED lighting systems and occupancy sensors.

Where appropriate, and as funds become available, energy audits of several buildings will be completed when possible to assist in identifying opportunities for future savings.

The main campus central heating and cooling plants are given special attention with regard to energy consumption. Capital requests are being considered for replacement of a 25-year old central chiller and a 52-year old central boiler with a more efficient and flexible modern units. The chiller replacement plan includes replacing the 1960s era cooling tower with a modern, energy efficient cooling tower.

Finally, the buildings and grounds staff are dedicated to managing the mechanical systems with an eye to saving energy as much as possible. We retain a temperature control firm who provides us with regular services to maintain our Building Management System and assist us with technical support as we improve the system.

8. 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

Included in Appendix F is a map of the main campus of the College. The southern property line is shared with University of Michigan-Dearborn and the Gabriel Richard Campus Ministry Center. The eastern border flanks Evergreen Road and provides the major vehicular entry points to the campus roadway systems and parking facilities. Immediately east of Evergreen Road is land owned by the Ford Motor Land Development Corporation, the Fairlane Town Center, and Fairlane Meadows. The western facilities boundary is created by the Rouge River watershed, controlled under the jurisdiction of Wayne County. The northern property line is Ford Road (M-153).

Despite these space limitations, it is considered important to protect and preserve as much open space as possible, particularly space adjacent to buildings and building additions.

At this time, it is determined that additional acquisitions are not needed to meet the need of future demands.

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

Student and Culinary Arts Center

2028

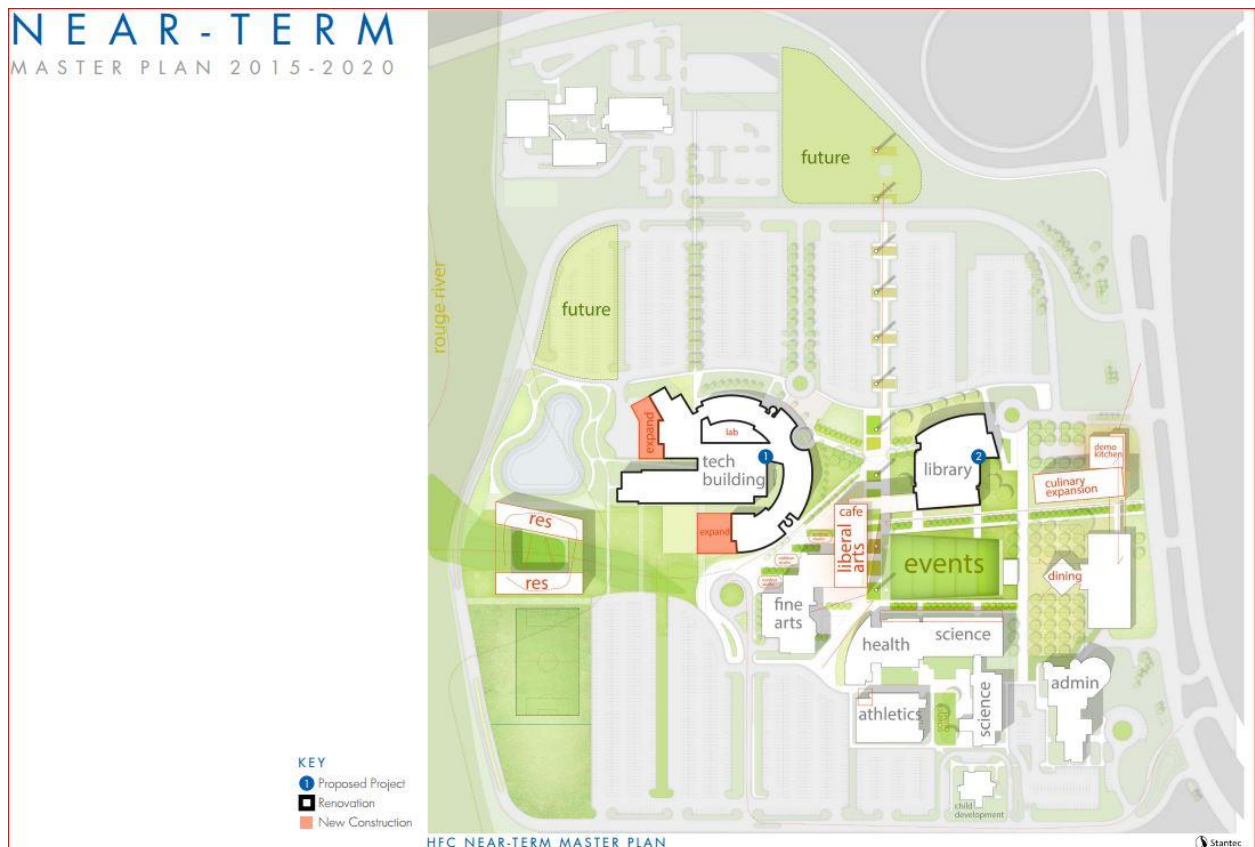
V. IMPLEMENTATION PLAN

The Five-Year Capital Outlay Plan should identify the schedule by which the institution proposes to address major capital deficiencies, and:

1. Prioritize major capital projects requested from the State, including a brief project description and estimated cost, in the format provided.

Based on the assessments described above, Henry Ford College has established the following projects which are listed in priority order:

- a. **Technology Building:** **The Center for Innovative Manufacturing Education (CIMed)**
- b. **Library:** **Student Success Center**



Detailed descriptions of the projects listed above are included in the [Master Plan](#) and Appendix A and B to this document.

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

The [2014-2015 Facilities Assessment and Deferred Maintenance Capital Planning Report](#) includes facilities issues according to their impact on health and safety, accessibility, code compliance, potential for stopping further deterioration of facilities, and impact on the learning environment.

Due to the severity of the infrastructure failings, the College continues to budget as much as possible to address these issues on an annual basis.

The findings of the **Technology Building** analysis include:

- The roof is past its useful life and needs to be replaced.
- Precast concrete panels, sill and tees show signs of spalling and cracking.
- Lay in ceiling and carpet are past their useful life.
- HVAC units operate all night to keep building warm in winter.
- Dual-duct boxes and distribution equipment is original and past useful life.
- Use of fire dampers in corridors is inconsistent and doesn’t meet code.
- Cast iron drain pipe and domestic water pipe are past useful life.
- Electrical panels and lamps are past useful life.

Vital Statistics
Technology Building

Use Type(s): classrooms, labs, offices

Built: 1964 with an addition built in 1993


Area: 169,848 GSF

Floors: 2

Building Description:
The structural system consists of concrete beam and column structure and limited areas of steel frame construction. The façade is a combination of precast concrete panels, concrete, brick, glass and metal siding. The roof of the original building is a ballasted roof which is + 20 years old. The roof of the new addition was replaced in 1995 and is reported to be in good shape.

Observation Highlights:


- The roof is past its useful life and needs to be replaced.
- Precast concrete panels, sills and tees show signs of spalling and cracking.
- Lay-in ceilings and carpet are past their useful life.
- HVAC units operate all night to keep building warm in winter.
- Dual-duct boxes and distribution equipment is original to the building and well past their useful life.
- Use of fire dampers in corridors is inconsistent and doesn't meet current code.
- Cast iron drain piping and domestic water piping are past their useful life.
- Electrical panelboards and fluorescent lamps are past their useful life.




CRV
\$50,105,000

Priority 1 FCI	Priority 1-3 FCI
6.5%	16.5%
DMB \$3,238,000	DMB \$8,273,000
DMB EXCESS \$ 733,000 <small>Over APPA 5% benchmark</small>	DMB EXCESS \$5,768,000 <small>Over APPA 5% benchmark</small>


MAINTAIN DMB
\$1,002,000
Annual cost to maintain current DMB



Priority 1



Priority 1-3



Technology Building
Facility Highlights

44

The findings of the **Eshleman Library** analysis include:

- Air handling unit is original to the building and is beyond useful life. It is outdated, energy inefficient technology and must be replaced (Note: Since audit was conducted, the cooling tower is leaking and must be addressed).
- The building's elevator is past its useful life and is failing.
- Concrete slabs at East and West entrances are heaving.
- EPDM roof is past useful life and due for replacement (Note: the College continues to address immediate health and safety issues and has replaced the roof during the summer of 2015).
- Exterior brick veneer is stained and needs tuck-pointing.
- Paint is peeling on the waffle slabs throughout the building.
- Carpet is significantly worn and needs replacement.
- Electrical gear is past its useful service life.

Vital Statistics


Eshleman Library Building

Use Type(s): Library, Office
Built: 1960
Area: 46,587 GSF
Floors: 2 (plus basement)

Building Description:
 The Eshleman Library was constructed in 1960. It is a two story building with a basement level. It is a brick veneer building with a concrete column and waffle slab construction. The Library was expanded to the South in 1997 at the same time that the LRC was constructed to the Library's North. The building is dedicated almost entirely to library stacks, study spaces and library resources.

Observation Highlights:


- The building's elevator is past its useful life and is failing.
- Concrete slabs at East and West entrances are heaving.
- EPDM roof is past its useful life and due for replacement. The expansion joint between the Library and adjacent LRC roof has holes in it.
- The exterior brick veneer has some staining that should be cleaned and requires some minor tuck-pointing.
- Paint is peeling on waffle slabs throughout the building, likely because the surface was not properly prepped before paint was applied.
- Throughout most of the building, the carpet is significantly worn and due for replacement.
- The building's air-handling unit is original to the building and therefore well beyond its useful service life. They system is also outdated, energy inefficient technology.
- Electrical gear is past its useful service life.




CRV
\$11,647,000

Priority 1	Priority 1-3
FCI 4.6%	FCI 17.4%
DMB \$536,000	DMB \$2,027,000
DMB EXCESS \$ 0	DMB EXCESS \$1,445,000
<small>Over APPA 5% benchmark</small>	<small>Over APPA 5% benchmark</small>

MAINTAIN DMB
\$233,000
Annual cost to maintain current DMB



Priority 1



Priority 1-3

Eshleman Library Building
 Facility Highlights

3. 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

There are no current projects financed with State Building Authority resources.

4. 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

Studies indicate that campus facilities and appearance are among the top reasons for students choosing a college. Therefore, modern and attractive facilities and classrooms will have significant impact on recruitment and retention. The experience and education students will receive will positively benefit local, state, national, and global employers as demonstrated by the Economic Modeling Specialist Data. The highly skilled workforce will contribute to the economic development of the areas in which the students become employed.

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

The distance learning program at HFC is being reviewed vis-à-vis the long-range strategic goals of the college. The Board of Trustees is allocating resources for research, personnel and ultimately development of the *Online at HFC* College. In essence, the College is developing and implementing a brand new, sustainable, quality first, structure and model focused on student success. To achieve this, a new structure will be established, quality standards will be guaranteed prior to publication, evaluations will be regularly conducted, student learning will be easily evaluated, student services will be embedded, and sustainability measures will be set. However, the growth of distance education programs will not reduce the physical space needs of the face-to-face delivery of instruction at HFC.

6. Identify a maintenance schedule for major maintenance items in excess of \$1,000,000 for fiscal year 2015 through fiscal year 2019

There are no major maintenance items in excess of \$1,000,000 planned.

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

For 2015-2016, the College has budgeted from operations approximately \$600,000 for non-routine maintenance.

Technology Building: The Center for Innovative Manufacturing Education (CIMed)

Excerpt from the HFC National Science Foundation Grant Application, October 2015:

Critical Issues Facing Education for Advanced Manufacturing Worker Development

A study of student workforce readiness conducted by the Lumina Foundation found that 96% of college academic officers felt that students were prepared for the workforce upon graduation, while only 11% of business leaders agreed (Lumina, 2015). Also highlighted by Baumann et.al (2014), there is a **gap between the skills students acquire and the skills employers need** them to have. This is particularly evident in the **U.S. manufacturing sector** where the skills gap continues to grow, not because of worker shortages, but because educational competencies are not aligned with those needed in the workplace.

Open-Lab Platform

“Traditional educational models are not designed to serve the population most needing postsecondary education. We keep trying to wedge nontraditional students into inflexible educational structures that were built for 18 to 22 year olds and have barely changed in almost a millennium.” (Browser, 2014) The implementation of Common–Performance Based Objectives through the Open Lab Platform (OLP) will allow Competency Based Education to reach full potential by addressing “accessibility, affordability, transparency, and improved learning outcomes - all relevant to graduates’ employability and strengthening of the workforce” (Book, 2014). The OLP will build upon best practices and lessons learned from other institutions. This is critical, because research on improving CBE’s effectiveness indicates it must be supported by other innovations in design, delivery and assessment including:

- Student centered learning, in terms of flexibility and personalization (Klein-Collins, 2013).
- The ability for students to study at a variable, customized pace and receive consistent faculty support (Johnstone and Soares, 2014).
- (Create) sustainable learning resources, available at any time (Johnstone and Soares, 2014)
- Redefine(ing) the role of faculty since their role will change and insuring faculty develop CBE expertise (Mendenhall, 2012) (Cavanaugh, 2013) (Le, Wolfe, and Steinberg, 2014)
- (Create)Valid, reliable assessments (Mendenhall, 2012)
- Modularized learning (Weise, 2014)

The platform has additional economic benefits for all stakeholders that include **maximizing instructional space for teaching and learning and optimizing hands-on technological equipment** so students can access appropriate equipment. By encouraging students to embrace a more self-directed approach, they will increase their success in mastering a skill and attaining credentials.

RECOMMENDATIONS

DEFINING THE PROJECT

POWER ENG./PROCESS TECHNOLOGY

1. Relocate and reduce equipment stock to accommodate creation of new Process Lab. If necessary to expand outside the existing enclosure, secure and screen new lab space. If a Process Lab were created in the existing outdoor area north of the Lab, it would require relocating (and in most cases abandoning) the equipment currently located in this area. Equipment relocated outside the existing enclosure would need to be secured and screened. Creation of a new Process Lab would require a roof to be built over the existing enclosure, along with appropriate walls, lighting, electrical, HVAC, etc. **P2**
2. Engineering Scope
 - New mechanical, electrical, plumbing, and fire protection systems will be provided to serve the new process lab. **P2**
 - A new packaged gas fired, direct expansion energy recovery unit with new ductwork distribution system will be provided to serve the lab.
 - 115 volt single phase and 480 volt three phase power will be extended from the distribution panel boards serving the first floor loads.
 - The existing fire alarm and wet pipe sprinkler system will be extended to serve the lab.
 - Plumbing utilities will be extended from existing building services. Sanitary service will require saw cutting of existing floor slabs.
 - New lighting designed in accordance with IES and campus standards will be provided.

MACHINE TOOL- CNC

1. Renovate the existing CNC and Manufacturing Labs to link the two spaces, accommodate new equipment and align with current and proposed future pedagogy. By linking the existing CNC Lab and Manufacturing Lab, space can be recaptured to accommodate new equipment (including 2 new Surface Grinders) and to provide a collaborative teaching area that will enable the program to align with current and future teaching practices. **P1**
2. Engineering Scope
 - The CNC lab and manufacturing lab are served by different electrical distribution points and HVAC systems. The mechanical, electrical, plumbing, and fire protection systems will be modified to support the reconfigurations of the rooms within the labs, but they will remain separate from a utility standpoint. **P1**

ROBOTICS/AUTOMATION/CONTROLS TECHNOLOGY

1. Relocate Cisco Lab and remove dividing walls between rooms 240, 238, 236 and 234 to create a continuous, flexible lab space that can accommodate additional new equipment. This area will undergo a complete repurposing to create a large flexible Lab. The walls that separate Rooms 240, 238, 236 and 234 will be demolished to create one continuous Lab teaching space that can accommodate a more modular pedagogy and significant new equipment provided in the Automation/Robotics Lab- specifically 5 new Fanuc trainers and a new SMC trainer. **P1**
2. Engineering Scope
 - The existing mechanical, electrical, plumbing, and fire protection system will be modified to support the renovation of the space. A new 480 volt, 60 amp, three phase panel served from PP2 will be provided to serve the new SMC trainer. Compressed air piping will be extended from building utilities to serve the SMC trainer. **P1**

GENERAL/MECHANICAL MAINTENANCE

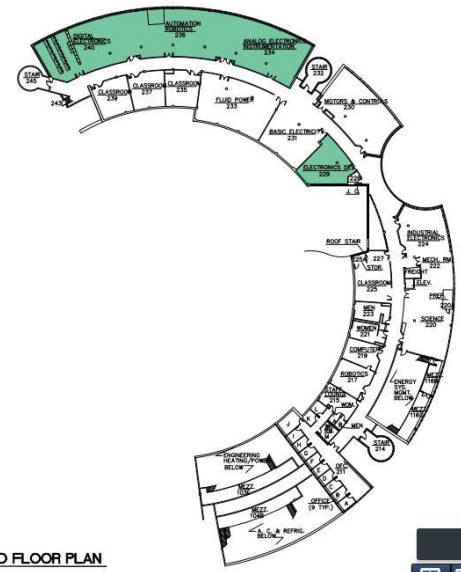
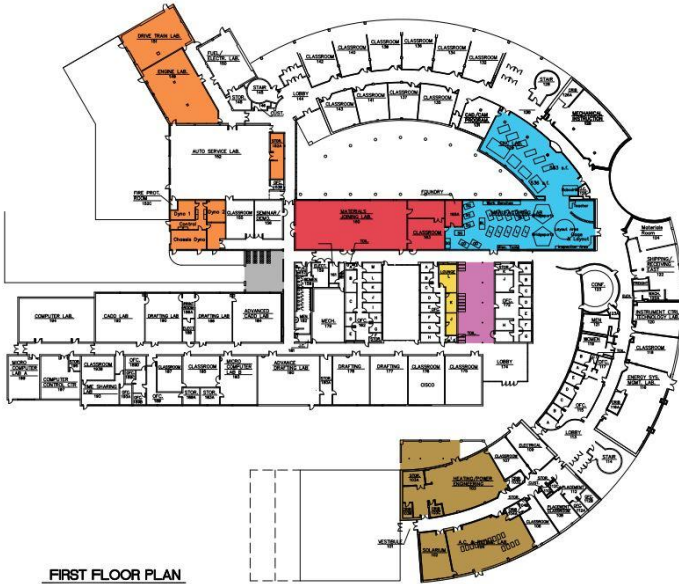
1. Relocate existing functions out of Room 171 and into Room 126 (to be done by HFC staff) for Mechanical Maintenance. This work will be performed by HFC personnel. **P1**
2. Renovate Room 171 into a collaboration area for student and faculty. Current lounge and offices (Rooms J, K and L) will become storage rooms to replace storage lost with the expansion of the Manufacturing Lab. The current location of Room 171 will be transformed into a Collaboration Area for students and faculty to include technology booths, soft seating, new finishes and lighting. This space will be designed to be a Social/Work space that will become one of the critical hubs in the building. The current lounge and offices (Rooms J, K and L) will become storage rooms to take the place of the storage rooms being demolished to expand the Manufacturing Lab (Rooms 165, 165B and 166). **P2**
3. Infill and roof over north courtyard to create "Super Lab". Create a large, open-floor, high-bay "Super Lab" in the north courtyard by roofing over this area and providing an open floor space. This location would be ideal as it would be flanked by specialized lab spaces (Welding, Manufacturing, CNC) as well as classroom spaces on the north that can serve as a support function to the main lab as classrooms, meeting spaces, workrooms, testing areas and specialized labs. This area is approximately 10,000 square feet. **P3**



RECOMMENDATIONS

SHORT TERM: PRIORITY 1

- Automotive Technology
- HVAC-R
- Machine Tool-CNC
- Robotics/Automation/Controls Technology
- Power Eng./Process Technology
- Tank Storage (Building Support)
- Collaborative Space
- Storage

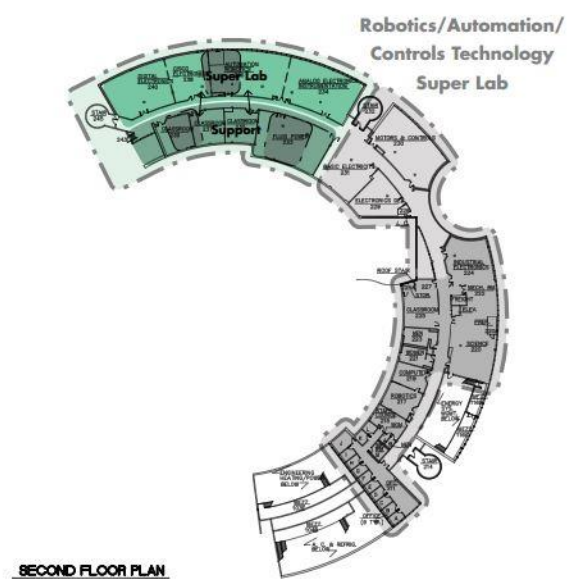
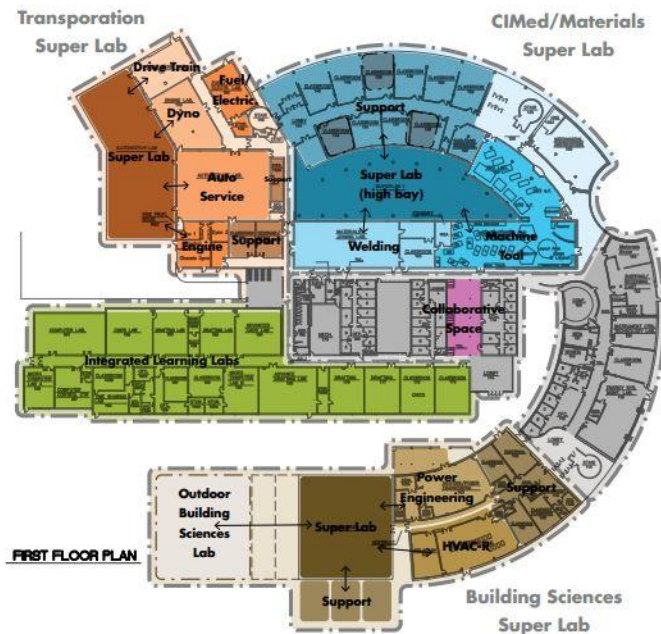


RECOMMENDATIONS

LONG TERM: PRIORITY 2 AND 3

- Transportation Super Lab
- Building Sciences Super Lab
- CIMed Super Lab
- Robotics/Automation/Controls Technology Super Lab
- Collaborative Space
- Building Support
- Integrated Learning Labs

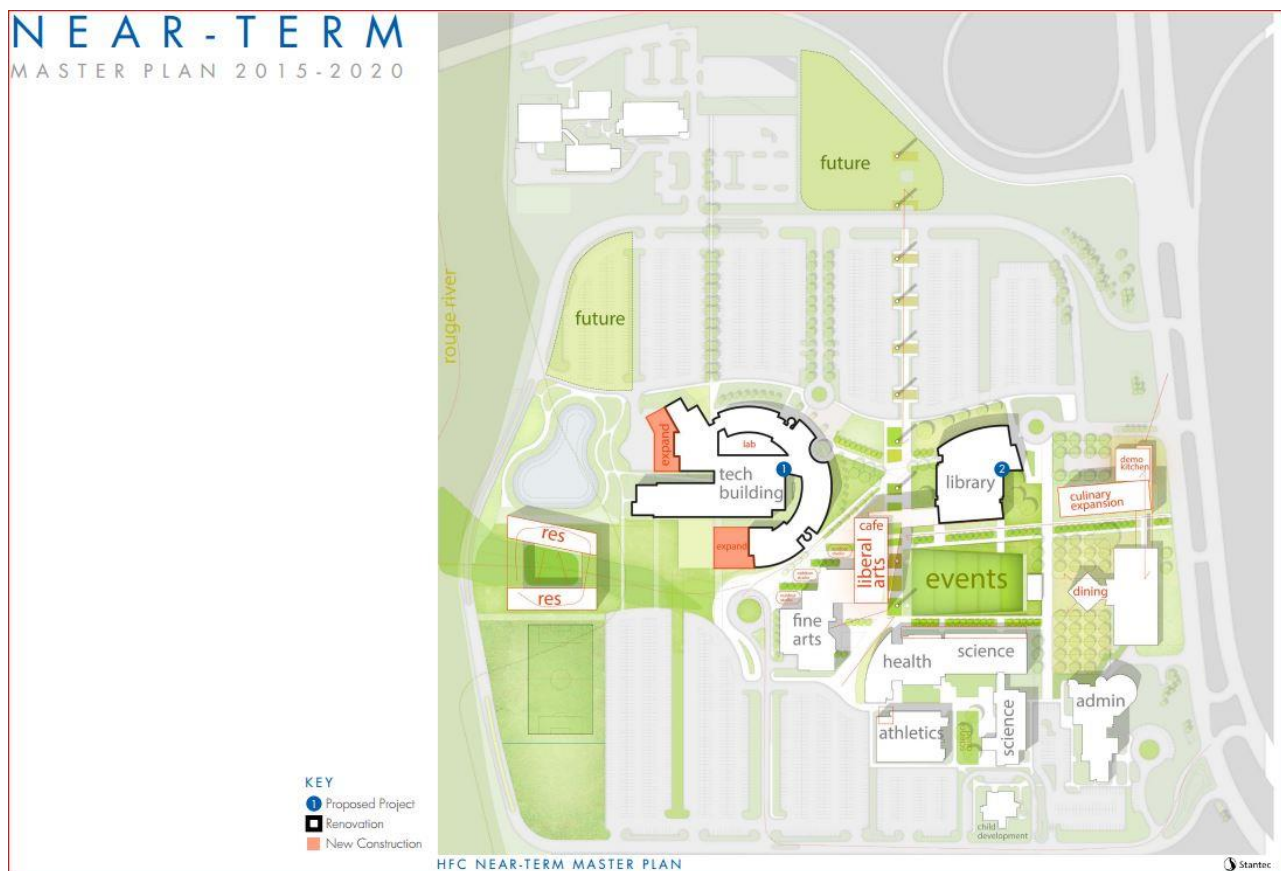
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Library: Student Success Center

The renovation of the existing library (83,000 GSF) into the Student Success Center is being proposed to achieve the following goals:

- Promoting student collaboration.
- Creating a hub for outside-the-classroom learning.
- Reimagining the library as the knowledge center.
- Prepare for Early College expansion.
- Upgrade classrooms and labs in academic buildings across campus.



Outcomes

Renovation of 83,000 GSF to create:

- Learning Commons. Relocating Bookstore to Learning Commons.
- Reallocate floor space for quiet and collaborative study, distributing computers throughout the building.
- Incorporate Student Success Programs into building.
- Learning Success Center to house student services such as Veterans Affairs, Honors, Study Abroad, Service Learning, Civic Engagement, Assisted Learning, Outreach, and Counseling.

APPENDIX C

R.A. SCHESSLER, INC
SUMMATION
OF

12/1/11

REAL ESTATE - BUILDING - HENRY FORD COMMUNITY COLLEGE		
SUMMARY BY BUILDINGS	REPLACEMENT VALUE NEW	SOUND OR DEPR. VALUE
LEARNING TECHNOLOGY	5,550,800.00	3,441,500.00
DEARBORN HEIGHTS CENTER	19,512,200.00	10,731,700.00
FINE ARTS	14,052,600.00	9,134,200.00
LIBERAL ARTS	22,230,200.00	12,226,600.00
LEARNING RESOURCE CENTER	24,101,600.00	20,004,300.00
PATTERSON TECHNICAL	39,067,600.00	25,393,900.00
PHYSICAL EDUCATION	7,823,100.00	4,693,900.00
SERVICE BUILDING	5,035,600.00	3,021,400.00
SCIENCE/HEALTH CAREERS	28,525,100.00	21,393,800.00
STUDENT CENTER	15,159,200.00	12,430,500.00
A.S.C.C. BLDG.	13,432,800.00	9,403,000.00
CHILD ACTIVITIES CENTER	1,582,200.00	1,392,300.00
YARD IMPROVEMENTS	587,400.00	411,200.00
M-TEC BUILDING	6,467,800.00	5,821,000.00
S.M.E. WEST BUILDING	7,221,200.00	5,054,800.00
S.M.E. EAST BUILDING	11,264,000.00	9,011,200.00
S.M.E. SOUTH BUILDING	6,014,700.00	4,450,900.00
NURSING BUILDING	6,541,200.00	5,821,700.00
NEW SCIENCE BUILDING	<u>8,927,600.00</u>	<u>8,927,600.00</u>
ASSET ACCOUNT GRAND TOTAL	243,096,900.00	172,765,500.00
PERCENT DEPRECIATION	X	

HENRY FORD COLLEGE
Building Age/Size

Building	Construction Date	Gross Area (Square Feet)	Volume (Cubic Feet)
Administrative Services & Conference Center	1983	59,645	980,348
ASCC – Addition	1988		
Athletic Memorial Building	1964	37,268	696,661
Athletic Memorial Building - Addition	1993	2,284	27,359
Child Development Center	1996	7,005	108,630
College Store	1975	7,752	69,768
Facilities Services Building	1994	7,932	116,576
Fine Arts	1981	65,079	987,639
Health Careers Education Center	1998	81,452	1,274,053
Learning Resources Center – Library	1966	46,587	556,615
Learning Resources Center – North Hall	1997	69,594	787,489
Learning Technology Center	1963	25,157	322,034
Learning Technology Addition	1997	615	7,971
Liberal Arts	1963	91,018	1,169,802
Liberal Arts – Chiller Addition	1995	3,823	68,812
Michigan Technical Education Center (M-TEC)	2001	28,890	300,000
Power House	1963	5,222	106,428
East Building (former SME)	1983	63,264	822,432
North Building (former SME)	1962	9,203	119,639
South Building (former SME)	1979	32,250	419,250
West Building (former SME)	1962	32,864	427,232
School of Nursing	2001	32,800	455,119
Science	1963	30,686	419,863
Student & Culinary Arts Center	1963	41,807	626,784
Technology Building – Patterson Technical Building	1965	61,567	810,222
Technology Building – Pump House	1964	462	6,468
Technology Building – Addition	1995	98,223	1,452,281
TOTAL		942,449	13,139,475

**APPENDIX E
BUILDING REPAIR PRIORITIES**

Building	Sq Feet	Priority Repair 1	Priority Repair 2	Priority Repair 3
Administration	59,002	Replace 2 Rooftop AC Units	Boiler Replacement	Replace Skylights, Hallway Windows
Athletic Memorial Building	36,460	Replace Gym Curtain Wall	Replace Bleachers	Roof Replacement
Child Development Center	7,003	Replace furnaces and AC units	Replace Interior lighting	Replace hot water system
College Store	7,730	New Vestibule	Replace Interior lighting	
Facilities Management Building	13,180	Install New Chiller Unit & Tower	Boiler Replacement	Install Gas Heating Unit (Dock)
Fine Arts	61,501	Exterior Panels Sealants/Glazing	Replace building carpeting	Install building AC
Health Careers Education Center	83,956	Replace building carpeting	Upgrade Surgical and Respiratory lab	Upgrade interior lighting
Learning Success Center				
Library	46,587	Exterior Panels Sealants/Glazing	Replace building carpeting	Upgrade interior lighting
LSC - North	69,594	Upgrade sound proofing between floors	Upgrade windows	Exterior Panels Sealants/Glazing
Learning Technology Center	25,772	Roof Replacement	Exterior Panels Sealants/Glazing	Replace exterior doors
Liberal Arts	89,580	Roof Replacement	Exterior Panels Sealants/Glazing	Power Upgrade
Science	72,086	Exterior Panels Sealants/Glazing	Upgrade windows	Upgrade science labs
Student Center & Culinary Arts	39,504	Roof Replacement	Exterior Panels Sealants/Glazing	Upgrade kitchen venting system
Technology				
Patterson	61,567	Roof Replacement	Exterior Panels Sealants/Glazing	Power Upgrade
New Technology	98,223	Roof Replacement	Concrete Polishing in Stairwells	Power Upgrade
Pump House	462	Roof Replacement		
Welcome Center				
West	33,680	Exterior Panel Sealants/Glazing	Liebert Computer AC Replacement	Upgrade interior lighting
North	6,640	Exterior Panel Sealants/Glazing	Upgrade interior lighting	Replace exterior doors

South	30,126	Exterior Panel Sealants/Glazing	HVAC BAS system Installed (Pneumatic)	Roof top Replacement (2 Each)
HFC Welcome Center	60,800	A/C replacement	Floor replacement 1st floor	Building Controls /Basement&3rd floor
M-TEC	28,115	Install destratification fan - high bay	Repair space heater, high bay	Install data room electrical backup generator
School of Nursing	33,155	Roof replacement	New windows in office areas	Leak in HVAC system, RTU-3HWS.

All facility related projects are on the HFC website under [Facility Maintenance Projects](#).

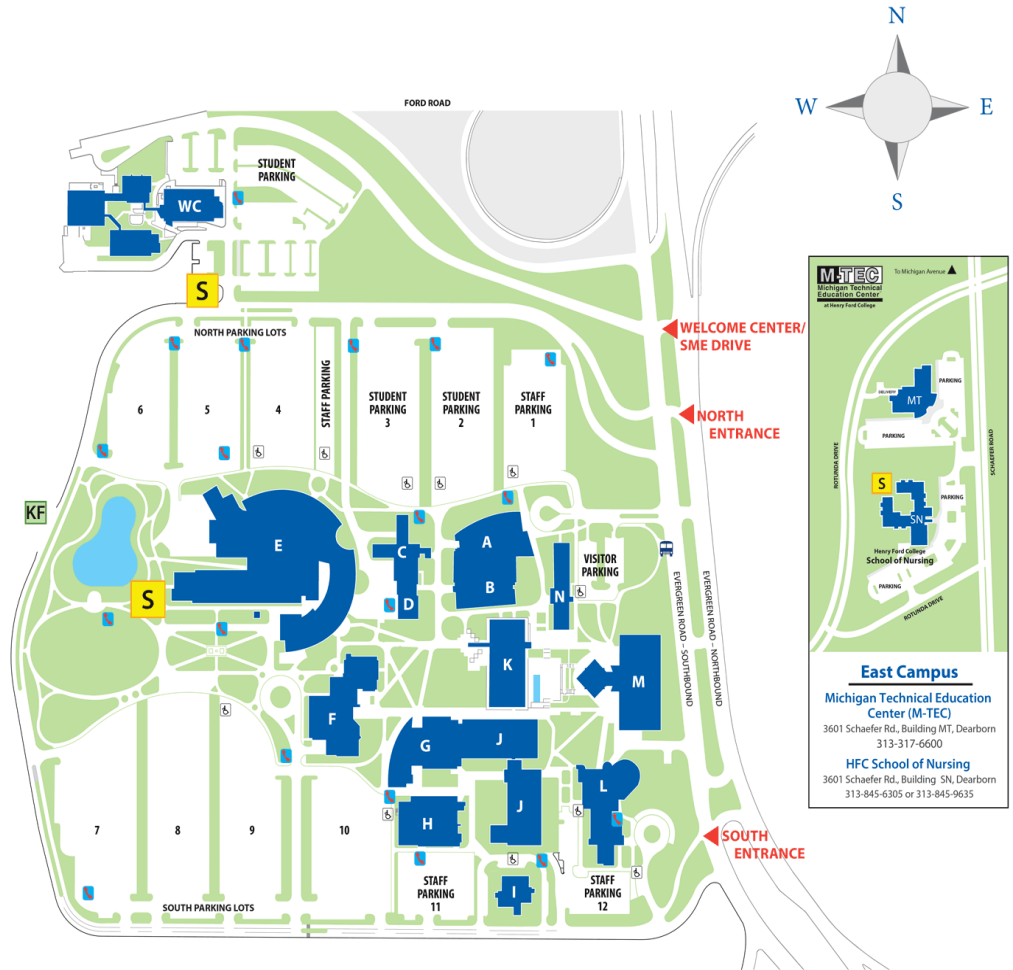
HENRY FORD COLLEGE Main Campus Map



5101 Evergreen Road
Dearborn, MI 48128-1495
(800) 585-HFCC or (313) 845-9600
www.hfcc.edu

LEGEND	
	Emergency Blue Light Phones
	Handicapped Parking
	M-Dot Bus Stop
	Smoking Zone
	King Fisher Bluff Deck
A	Learning Success Center Assisted Learning Services Career Services Counseling Learning Lab Student Outreach Services Library
B	Media Center College Store
C	Facilities Service
D	Purchasing Shipping and Receiving
E	Technology Building Chafetz Conference Room E-123 Fine Arts Center
F	Adray Auditorium Sisson Art Gallery
G	Health Careers Education Center Hackett Conference Room G-150
H	Athletic Memorial Building Fitness Center Gym
I	Child Development Center
J	Science Building Planetarium
K	Liberal Arts Building English Language Institute
KF	King Fisher Bluff Deck
L	Administrative Services and Conference Center Forfa Auditorium Berry Amphitheater Rosenau Board Room (A, B, C)
M	Student and Culinary Arts Center Kuhlman Dining Room Fifty-One O One Restaurant Skylight Cafe Student Activities WHFR Radio Station 89.3 FM
MT	Michigan Technical Education Center M-TEC
N	Campus Safety
SN	School of Nursing
WC	Welcome Center Community Rooms

October 2014



The latest version of the [campus map](#) can be found on the HFC website.