



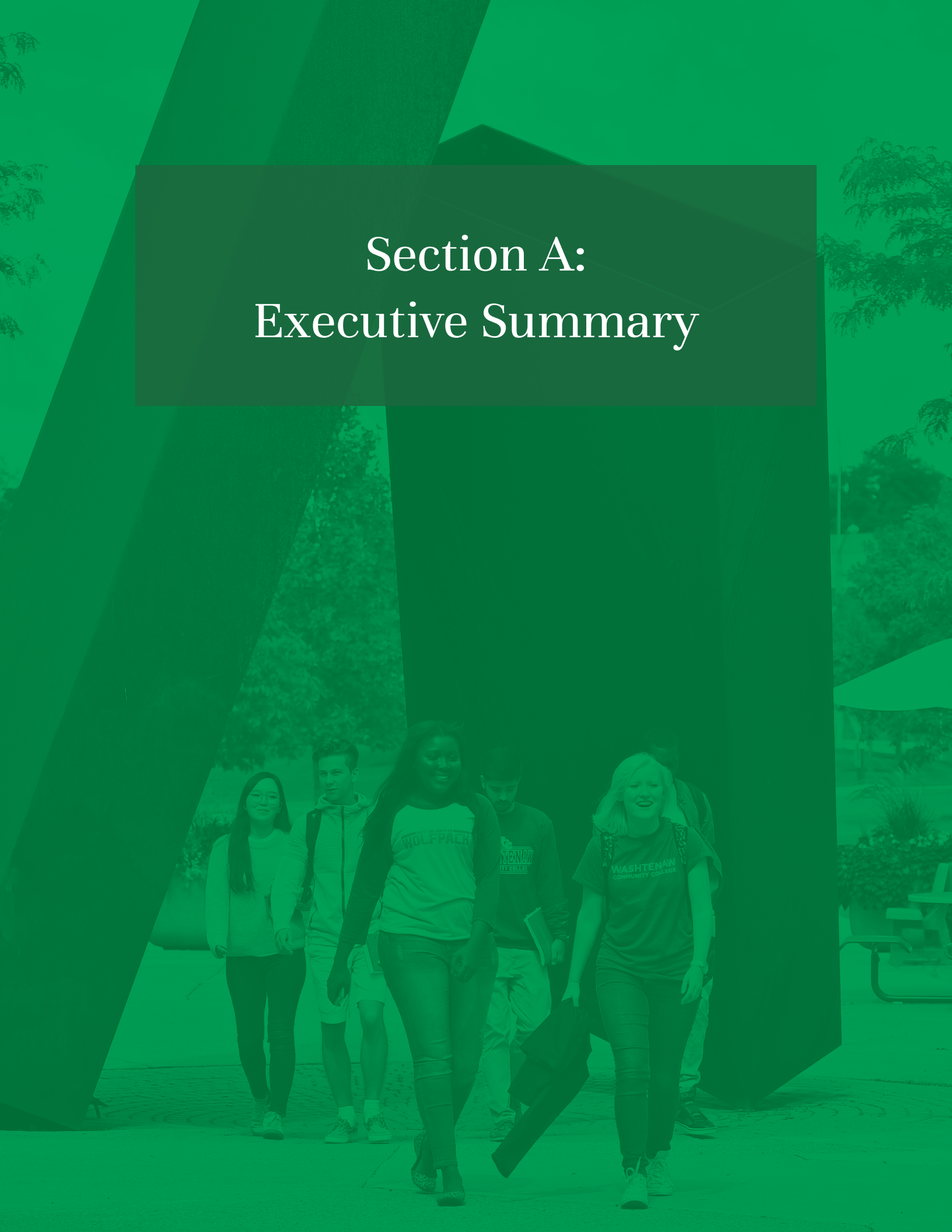
Washtenaw
Community College

Capital Outlay Plan

2020–2024



Section A: Executive Summary



EXECUTIVE SUMMARY

The education and training support services provided by Washtenaw Community College is a key component of economic growth and success in the Washtenaw County region. Each year more than 20,000 students register for Fall, Winter and Spring/Summer semester classes and 6,000 more enroll in workforce development and continuing education classes and programs. In 2017, 2,667 WCC graduates entered the workforce or transferred to a four-year institution to complete a bachelor's degree. In addition, more than 80,000 guests visit the campus each year many of whom are here to attend one or more of the 3,863 community events we host. With nearly 1,500 full- and part-time staff, WCC is one of the largest employers in Washtenaw County. In fact, a recent study by Economic Modeling Specialists International (Emsi), determined that the College had an economic impact of \$524.1 million on the economy of Washtenaw County in 2017.

Students come to Washtenaw Community College representing the diversity within our community. Many – about 14 percent – are first generation college students, about five percent are single parents, about three percent are veterans, and another three percent request physical accommodation. The average age of our students is 26 and 14.8 percent (1,838) are college graduates returning to school to gain new skills to use in their current field or to prepare for a new career in another field. About 70 percent of all new students are unprepared for college-level in math and 20 percent are unprepared for college-level reading based on prior academic performance and college placement exams. Regardless of their background, all of our students come through our doors with the expectation that we will prepare them with the skills and knowledge they need to thrive in a rapidly evolving educational, technological, and economic environment and ultimately succeed in a job that may not exist yet. Employers and partners in business and industry expect that we will train, prepare and deliver a high-skilled workforce to meet their quickly changing needs.

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To address these challenges, Washtenaw Community College makes student success a strategic priority through a holistic approach that combines Academics, Student Services, and Workforce Development programs to support our mission, which is to make a positive difference in people's lives through accessible and excellent educational programs and services. Over the next five years, the College will focus on bringing all of our students-focused services into one area to provide students and employers with one central location from which to begin their academic and training journey with Washtenaw Community College in degree and non-degree credit programs and services.

WCC plans to create a powerful new Workforce Development ecosystem focused on ensuring that residents in our region receive the postsecondary education and training that is required to attain a career that will support a family. Increasingly community colleges are being asked to serve effectively students with educational and personal barriers while at the same time improving the engagement of employers to ensure that students are being trained for in-demand jobs. To meet these increasing demands and better engage with employers, community colleges must be engaged in sector strategies, develop comprehensive career pathway programs, and work with community-based agencies and non-profit organizations to help remove barriers to student success – which we define as persistence through their education program to certificate or degree completion.

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Sector strategies promote regional industry growth and competitiveness by developing strategies across the workforce system to fill current job openings along with longer-term strategies to increase competitiveness and growth. Partnerships are created between community colleges, community-based organizations, labor, trade associations, and business and industry to a) improve the economic situation of workers, b) address and close the skills gap, and c) boost productivity and increase regional competitiveness. Washtenaw Community College is currently engaged in sector strategies around three industries – advanced transportation, health care and skilled trades.

One example of how we are working to meet the needs of the current and future workforce is our Advanced Transportation Center, which helps prepare the current and future workforce for jobs in the emerging transportation industry. There are currently 140,000 open, unfilled jobs available today in Michigan’s advanced transportation sector. Nationally, 4.6 million new workers will need to be hired and trained for jobs in the transportation industry through 2022, according to a joint report by the U.S. Departments of Labor, Education, and Transportation.

Since 2015, WCC has spent more than \$8 million in equipment and facility upgrades at the Advanced Transportation Center. This includes \$4.4 million in funding awarded through the state’s Community College Skilled Trades Equipment Program (CCSTEP), \$300,000 awarded through a U.S. Department of Labor grant, and a portion of a \$2.47M U.S. Department of Transportation grant awarded to the Center for Connected and Automated Transportation (CCAT), in which WCC participates. The College also made a \$3.6M investment to centralize trade programs into one building to increase training across disciplines. In addition, the automotive services and information technology faculty at the College collaborated to define new courses to meet growing demands in the mobility technology sector. The College’s investment allows our students to train on state-of-the-art equipment ensuring that they will be prepared for jobs in the rapidly growing industries of intelligent transportation systems, advanced manufacturing, and automotive

transportation servicing. WCC created the Advanced Transportation Center to deliver cutting-edge education and training in the connected and autonomous vehicle sector. As such, we have also created partnerships with MDOT, Planet M, University of Michigan Transportation Research Institute, and the American Center for Mobility, in addition to Toyota, GM and more.

WCC has also addressed the growing need for health care professionals in Washtenaw County by moving quickly to expand the capacity of its health care programs. The College made the health sciences programs a central part of the capital budgeting process as well as added faculty and staff positions to the division. WCC re-organized space in an existing building to create additional simulation and lab classrooms. Currently, plans are underway to re-purpose and re-configure underutilized space to create additional health lecture classrooms, simulation debriefing practice space, and clinical observation stations. WCC is creating mock patient rooms and making updates to the building aesthetics to simulate a hospital environment.

In July 2018, the National League for Nursing designated Washtenaw Community College as a Center of Excellence for Nursing Education. WCC is the only college or university in Michigan to be awarded this designation, which represents its great commitment to student success and retention.

The results to date have been impressive. In July 2018, the National League for Nursing designated Washtenaw Community College as a Center of Excellence for Nursing Education. WCC is the only college or university in Michigan to be awarded this designation, which represents its great commitment to student success and retention. Since 2004, only 83 nursing schools have received this designation.

In the area of skilled trades, the College serves as a training hub for international trade unions such as the United Association of Journeymen and Apprentices of the Plumbing, Pipefitting and Sprinkler Fitting Industry of the United States and Canada (UA), the International Association of Bridge, Structural, Ornamental and Reinforcing Ironworkers (Ironworkers), and the Operative Plasterers' and Cement Masons' International Association (OPCMIA).

Every year for the last 29 years, the College has hosted the week-long Instructor Training Program for the UA in classrooms and laboratories across campus. Last year, approximately 2,500 student instructors for the UA and an additional 400 faculty, industry representatives and staff visited Ann Arbor and WCC for an intensive week of hands-on instruction. UA members use the WCC campus facilities, including classrooms, computer labs, mechatronics facility, and welding labs, to name a few. According to the Ann Arbor Convention and Visitors Bureau, this program generates over \$8 million in economic development to the local economy.

WCC continues to hold the Ironworkers Instructor Training Program (ITP) on the WCC campus. Approximately 825 participants attend the program that trains for proficiency in jobs involving welding, structural steel erection, architectural and ornamental ironwork, concrete reinforcement, rigging and machinery moving and installation – as well as blueprint reading and computer skills for the ever-changing job market. The regional community benefits when the program comes each year, it generates nearly \$5 million in economic impact within Washtenaw County.

WCC signed a five-year agreement with the Operative Plasterers, Cement Masons International Association (OPCMIA) in 2017, and the union held its first national instructor training program on the campus in June of 2018. Approximately 125 participants attended the training program conducted in the computer labs on campus.

Last year, WCC had two adult students earn a GED and a Sterile Processing certificate concurrently. Both were hired by a hospital system and are now making about \$40,000 a

Career pathways are designed to connect progressive levels of education and training, which helps individuals earn marketable credentials, engage in further education and employment, and achieve economic success. Accordingly, career pathways systems deeply engage employers in their design to ensure employment for students and workers. Combining this career pathway approach to education and training with sectoral strategies builds stronger partnerships between community colleges and the larger workforce system and leads to better employer engagement.

One example of a career pathway at Washtenaw Community College is our sterile processing certificate – a 16-credit program that can be completed in less than one year and provides entry to a high-demand, high-wage job. This certificate is designed to meet employer demand and was developed in partnership with Michigan Medicine and St. Joe Health System, with a starting pay of \$18-20/hour. Many of the credits needed for the sterile processing certificate can be applied towards an associate degree in Surgical Technology, which could lead to a higher paying job as a surgical technician. Students who are working to earn their GED can complete this program effectively providing someone without a high school diploma a pathway to a high-wage, high-demand career within one year. Last year, we had two adult students earn a GED and a Sterile Processing certificate concurrently. Both were hired by a hospital system and are now making about \$40,000 a year.

Another example of a career pathway is our Ironworkers Pre-Apprenticeship Certificate developed in cooperation with the Ironworkers international union. The certificate program teaches some of the skills needed to become a union Ironworker apprentice in the United States and Canada. A combination of classroom and lab training provides real-world experience, including blueprint reading, math, safety, and welding training used by the union Ironworker trade. Students who successfully complete the 24-credit program receive

a certificate of completion and are eligible for advanced standing in the Ironworker Local Union Apprenticeship Training Program where apprentices “earn while they learn.”

Through our partnership with United Association, UA members can now complete their associate degree in just five online classes. By taking one class a year, UA apprentices can graduate from WCC with a degree at the same time that they complete their apprenticeship. Finally, to address the personal barriers and challenges faced by so many students, community colleges must collaborate with local community-based organizations, which are well equipped to provide case management and strong support systems to help students overcome barriers and challenges. Through high-quality education programming, providing a range of academic and non-academic support services, and employer engagement strategies to ensure the partnership meets the demands of local industries, these types of partnerships are able to leverage institutional capacities and resources to ensure student success.

In eastern Washtenaw County, WCC offers job coaching, resume writing, and interviewing skills at our Harriet Street office, which is co-located with Michigan Works! Southeast. Other services offered at that office include workforce development training for those looking to advance their career or obtain an entry-level job as well as certification testing and specific industry skills and free ACT WorkKeys® preparation.

Ypsilanti Community High School that allow students to earn college credit while enrolled in high school. WCC offers these popular programs for students in Ypsilanti Community Schools, Lincoln Consolidated Schools, and other districts in Michigan:

- Certified Nursing Assistant Certificate: This certificate program provides an opportunity for entry-level employment for health care jobs. Students are able to earn six college credits for this one-semester program.
- Introduction to Manufacturing Processes: In this program, students learn manufacturing fundamentals including blueprint reading, 3D modeling system, and output files used to control manufacturing systems – preparing students for high-paying jobs that are in demand. Students are able to earn 16 college credits for this two-semester program.
- Child Development Certificate: This program prepares students for employment in childcare centers working with infants and toddlers, or preschoolers. Because early childhood education is widely recognized as important for a child’s intellectual development, job growth is expected to grow by seven percent over the next four years. Students are able to earn 12 college credits for this two-semester program.

Taking best practices one step further, the purpose of our capital outlay request is to create a powerful new Workforce Development ecosystem focused on ensuring that residents in our region receive the postsecondary education and training that is required to attain a career that will support a family and employers have access to workforce talent they need for economic growth. We will accomplish this by creating a Washtenaw Community College Center for Success that will centralize all academic support, workforce development, and wrap-around services provided to students. Centralizing the student experience and services is the foundation for institution-wide transformative change to

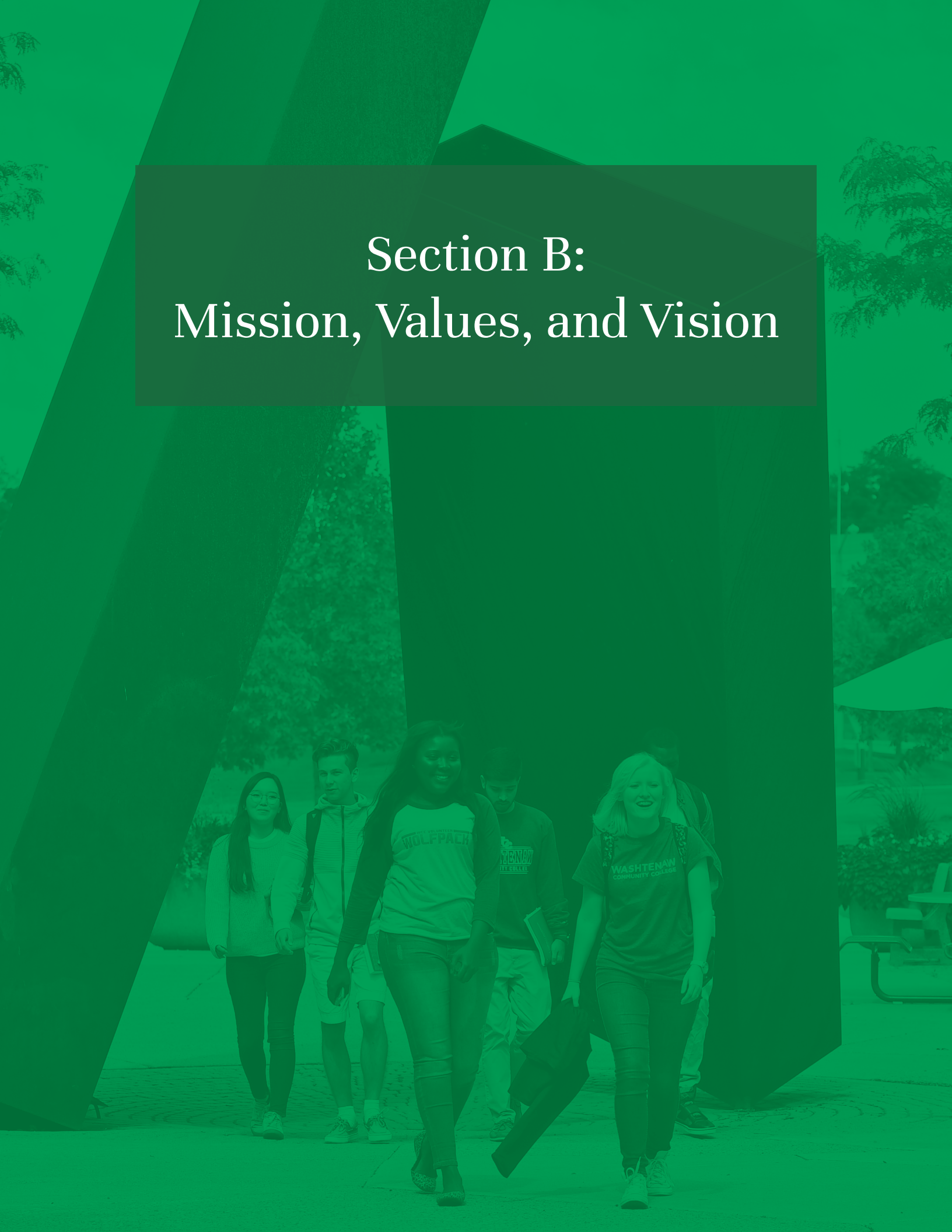
increase student persistence, retention, and degree or certificate completion to meet the ever-increasing demand of business and industry for a qualified workforce.

The College's Five-Year Capital Outlay Plan 2020-2024 describes our current and future instructional programming needs along with an assessment of present and projected enrollments that drive it. It also takes a detailed look at our existing facilities through a condition survey of all buildings on campus. It must be emphasized that the College's major instructional campus buildings are, on average, 30 to 40 years old and will continue to require renovations and additions to support future instructional programming given our enrollment trends as described herein.

- Section C describes the College's current academic programs along with projected programming changes during the next five years due to changes in our physical facilities.
- Section D of the plan includes current enrollment levels and is reviewed by program area with projections of expected increases in both enrollment and credit hours. Future staffing needs are also discussed and the impact on future enrollment estimates.
- Section E of the plan includes the current facilities assessment with a critical evaluation of the overall condition of all buildings on the College's main campus.
- Section F describes how the College intends to implement the plan.

As always, the College appreciates the support it has received from the State as it continues to fulfill its mission of serving the citizens of Washtenaw County.

Section B: Mission, Values, and Vision



MISSION, VALUES AND VISION

Mission

Our college strives to make a positive difference in people's lives through accessible and excellent educational programs and services.

Values

Teaching and Learning: We embrace teaching and learning as our central purpose.

Support: We make every effort to help learners achieve success.

Diversity: We respect differences in people and in ideas.

Partnerships: We plan and work together with respect, trust, and honesty within the College and with the communities we serve.

Innovation: We seek the best possible ways to conduct our work.

Vision

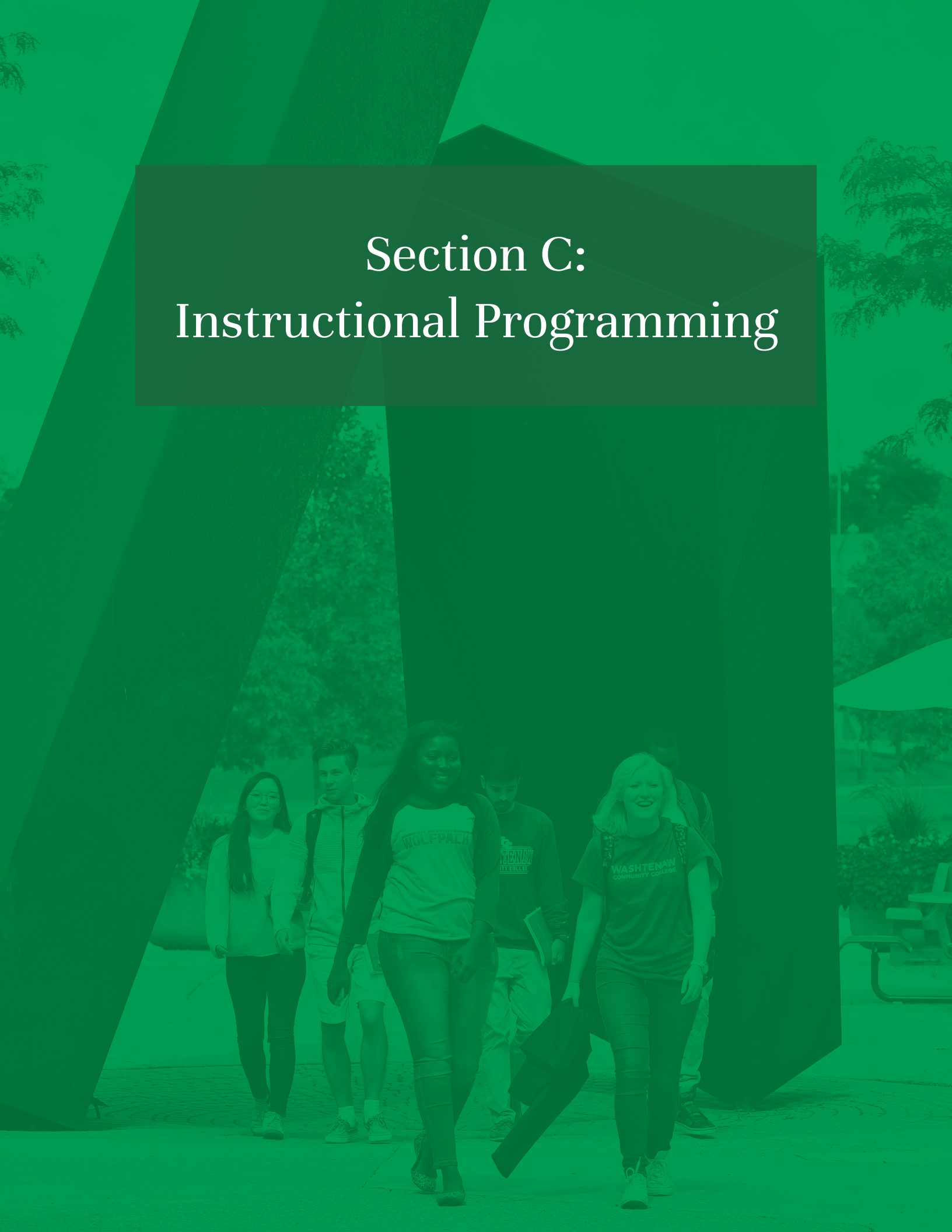
WCC is a learner-centered, open-door college dedicated to student, community, and staff success. We offer a wide spectrum of community college services with an emphasis on premier technical and career educational programs. The College staff continuously learns to improve learning.

Student Success: Our students come first. We are committed to their learning, success, and satisfaction. We strive to serve every student in an effective, caring, and supportive way. In order to enhance student learning outcomes, we engage in continuous improvement of teaching, programs, processes, and structures. We increase our accessibility by reaching learners where, when, and how they need instruction through the use of learning technologies, workplace learning experiences, and flexible scheduling of classes.

Community Success: We are committed to community learning, success, and satisfaction. WCC's primary contribution to community success is the development of a highly skilled workforce. A strong partnership with area employers emphasizes customized employee training and rapid adaptation of WCC programs to changing job training needs. Through strategic alliances with business, government, labor, and other educational institutions, WCC increases its emphasis on applied technology education, joint technical education programs with the public schools, and basic job-training services to underserved and at-risk groups.

Staff Success: We are committed to staff learning, success, and satisfaction. As a staff, we emphasize teamwork within College units and between the units. We support our colleagues and help them to be successful. We learn to improve learning; that is, we continuously increase our capacity to meet the educational requirements of the students, employers, and communities we serve. Through staff learning, we continuously improve services at each stage of the flow of students through WCC. All staff members align their work to contribute to improved teaching and increased student and community learning.

Section C: Instructional Programming



INSTRUCTIONAL PROGRAMMING

Overview of current academic programs and major academic initiatives

- 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 (i.e., laboratories, classrooms, current and future distance learning initiatives, etc.).**

Constant changes in industry require colleges to be nimble and responsive. Washtenaw Community College is doing both. WCC has responded by making investments in facility changes that promote high-wage, high-demand jobs and career paths.

Over the last three years, the College aggressively aligned new curriculum with the \$4.4M CC-Step equipment investment made by the state. An additional \$3.6M investment was made by the College to centralize trades programs into one building to increase training across disciplines. In addition, the automotive services and information technology faculty at the College collaborated to define new courses to meet the growing demands in the mobility technology sector.

The College's investment allows our students to train on state-of-the-art equipment ensuring that they will be prepared for jobs in the rapidly growing industries of intelligent transportation systems, advanced manufacturing, and automotive transportation servicing. WCC created the Advanced Transportation Center to deliver cutting-edge education and training in the connected and autonomous vehicle sector. As such, we have also created partnerships with MDOT, Planet M, University of Michigan Transportation Research Institute, and the American Center for Mobility, in addition to Toyota, GM and more.

WCC has also addressed the growing need for health care professionals in Washtenaw County by moving quickly to expand the capacity of its health care programs. The College made the health sciences programs a central part of the capital budgeting process as well as added faculty and staff positions to the division. WCC re-organized space in an existing building to create additional simulation and lab classrooms. Currently, plans are underway to re-purpose and re-configure underutilized space to create additional health lecture classrooms, simulation debriefing practice space, and clinical observation stations. WCC is creating mock patient rooms and making updates to the building aesthetics to simulate a hospital environment.

The results to date have been impressive. In July 2018, the National League for Nursing designated Washtenaw Community College as a Center of Excellence for Nursing Education. WCC is the only college or university in Michigan to be awarded this designation, which represents its great commitment to student success and retention. Since 2004, only 83 nursing schools nationally have received this designation. Also in 2018, two students graduated from our award-winning GED program and Sterile Processing Certificate program simultaneously and secured employment.

The College makes a strong impact on the regional economy by helping diverse groups of students reach their educational goals as well as training and educating talent. Innovation and continuous improvement are the foundation of all our programs and courses at WCC. The College has effectively leveraged technology by growing and supporting online education and integrating technologically advanced software and equipment into courses across campus.

Across all of our programs, 70.5 percent of WCC's degree seeking students have identified that they intend to transfer to a four-year college or university to pursue a bachelor's degree. Other students are seeking short-term training to earn industry-recognized certificates. No matter the student's goals, over the next five years, the College will focus on forming a visible footprint of services to promote student success. Beginning with recruitment and admission, entry assessment, orientation, advising, coaching and counseling services, through tutoring, instructional labs, library services, childcare, access and veterans services to career and transfer services, WCC plans to create a physical representation of the student life cycle. Centralizing the student experience and services is the foundation for institution-wide transformative change to increase student retention and completion.

WCC has focused on being responsive to the ever-changing industry needs and technological changes that prepare employees for the future, our goal is to continue to innovate and lead in helping more students reach their goals. Updated equipment and learning spaces facilitate promising higher education outcomes. We are confident that a physical space supporting student success and a valuable educational experience and wrap-around services will drive increased results to create economic impact in the community and across the state.

- b. Identify the unique characteristics of the institution's academic mission. (Two-year degree and certificated technical/vocational training, workforce development activities, adult education focus, continuing or lifelong educational programming, partnerships with intermediate school districts(s), community activities; geographic service delivery area(s), articulation agreements or partnerships with four-year institutions, etc.)**

WCC fulfills its mission to make a positive difference in people's lives through accessible and excellent educational programs and services by the wide variety of educational programs and services offered. The College's programs and outreach spans from relationships with K-12 organizations through partnerships with employers and four-year institutions.

1. *Career and occupational education.*

- ❖ The College has statewide agreements with High School Career and Technical Education (CTE) programs for 28 WCC courses that allow high school students to earn college credit for their work.
 - Any student who completed all 12 segments of an approved CTE program at an approved Michigan High School with a final grade of "B" or better may request a recommendation for credit from their high school instructor and be awarded college credit for high school career and technical education course work.

- ❖ The College also has 20 additional articulated WCC courses directly with local high schools.
- ❖ In 2017-2018, 234 CTE enrollments were approved for 35 courses resulting in a savings of nearly \$22,000 in tuition and fees.
- ❖ 57.9 percent of WCC students are in occupational programs.
 - The line between transfer and occupational programs is becoming less distinct as some certificates and associate degrees are within an occupation while also being transferable to a four-year institution. As colleges and universities continue to recognize occupational programs as degree worthy, WCC will continue to foster relationships that will benefit students.

2. **Dual Enrollment:** WCC also offers dual enrollment programs throughout the region. National research shows that high school students who dual enroll in college are more likely to enroll in college after high school and successfully complete their college degree. As Michigan aggressively pursues higher credential attainment for our residents, dual enrollment serves both students seeking credentials and employers who are seeking highly skilled, employees. In Fall 2018, WCC dually enrolled 1036 students, a 26 percent increase since Fall of 2014.

One outstanding example of our strategy is our partnership with Ypsilanti Community High School that allow students to earn college credit while enrolled in high school. WCC offers these popular programs for students in Ypsilanti Community Schools, Lincoln Consolidated Schools, and other districts in Michigan:

- **Certified Nursing Assistant Certificate:** This certificate program provides an opportunity for entry-level employment for health care jobs. Students are able to earn six college credits for this one-semester program.
- **Introduction to Manufacturing Processes:** In this program, students learn manufacturing fundamentals including blueprint reading, 3D modeling system, and output files used to control manufacturing systems – preparing students for high-paying jobs that are in demand. Students are able to earn 16 college credits for this two-semester program.
- **Child Development Certificate:** This program prepares students for employment in childcare centers working with infants and toddlers, or preschoolers. Because early childhood education is widely recognized as important for a child’s intellectual development, job growth is expected to grow by seven percent over the next four years. Students are able to earn 12 college credits for this two-semester program.

3. **Washtenaw Technical Middle College (WTMC).** Washtenaw Community College houses an award-winning charter high school that continues to attract more students than can be admitted. Space and classroom issues will need to be addressed.

- ❖ Because WTMC students achieve in the top 1 percent of all high school students in Michigan, the middle college has earned Michigan Department of Education’s "Reward School" status.
- ❖ Research done by the National Center for Restructuring Education, Schools and Teaching (NCREST) at Columbia University's Teachers College has documented that

WTMC students pass 95 percent of the college courses they take, and their grade point average in college courses in 2013 was 3.39.

- ❖ WTMC was selected as the best of nine highly effective, cutting-edge educational programs in the state of Michigan, earning the “2014 Governor's Education Summit” award for collaboration and innovation.

4. ***Transfer education.*** Programs and courses in both general and many occupational education areas provide students with the option of transferring to a four-year college or university, as well as supporting personal growth. Approximately seventy percent of WCC students plan to transfer to a four-year institution to pursue a bachelor’s degree. The College continues to work with four-year institutions to secure additional agreements that promote seamless transfer that also minimizes duplication of or loss of credits for students. Transfer articulation agreements allow students to attain a credential at WCC while simultaneously accumulating credits that will transfer and apply toward a higher-level credential at another institution.

- ❖ **WCC has 129 articulation agreements** with various colleges and universities that provide course requirements and guidance for transfer between WCC programs and those at other higher education institutions.
- ❖ Nine agreements allow students to transfer prior credits to WCC, while pursuing a degree or certificate at WCC.
- ❖ Nine reverse transfer agreements allow students to transfer credits from their current institution back to WCC to complete a certificate or degree at WCC, while attending another college or university.
- ❖ One-hundred and nine agreements are designed for students to transfer credits to a complete a certificate, associate degree or bachelor’s degree elsewhere.
- ❖ Forty-three agreements allow students to earn prior credit for work experience, such as apprenticeships or occupational programs.
- ❖ Forty-six “3+1 agreements” allow students to complete more than 82 credit hours at WCC towards a bachelor’s degree at another institution.

These agreements can reduce by up to three years the time and expense spent at the four-year college, potentially saving each student more than \$57,000 annually when compared to the average cost for Michigan public four-year colleges and universities.

In support of the completion agenda, WCC has completed and signed reverse transfer agreements with nine four-year colleges. These agreements allow us to communicate with students who have completed much of their associate degree coursework at WCC to transfer back courses completed at a four-year institution. Students will benefit as they gain documentable credentials. The institution will benefit from this agreement through an increase in the number of degrees conferred.

5. ***Continuing education and community services.*** Both credit and noncredit programs address community and business/industry needs, ranging from personal growth courses to technology training programs for business and industry. In addition, much of the GED preparation and testing in Washtenaw County is conducted by WCC’s Adult Transitions Department. In fact, Community Development and Workforce are two of the college’s strategic priorities, which include a specific focus on eastern Washtenaw County.

6. **Developmental education.** Courses in this area strengthen writing, reading and mathematical skills, as well as instruction for those learning English as a Second Language (ESL). Academic Skills (ACS) courses are assigned to those who read below college level. The college also works with Washtenaw Literacy and other community agencies to assist students who have reading skills below the high school level. WCC recently introduced MTH 099 Math Placement Acceleration Lab. This one-credit hour class allows students the opportunity to increase their math placement test score. Students use an online system to practice skills then are able to retake their math placement tests. Instruction is provided as needed on a one-on-one basis.
7. **Student support services.** A variety of services at the College prepares students to fully use and benefit from academic programs and courses. These services include orientation, entry assessment, academic advising, financial aid, transfer assistance, career counseling, personal counseling, computer email accounts, tutoring, childcare, job placement, special needs services, instructional labs, and library services.

Table 3. New Programs for 2018-2019

Program Name	Award
Animation for Film and Broadcast	Advanced Certificate
Animation for Game Art	Advanced Certificate
Baking and Pastry Essentials	Certificate
Culinary Essentials	Certificate
Engineering Technologist – Manufacturing	Associate in Applied Science
Pre-Engineering Science Transfer	Associate in Science

Washtenaw Community College offers 139 for-credit programs, with 1,422 credit courses in 94 disciplines. The programs represent an array of credentials from certificates of completion to associate degrees and post-associate certificates. Table 4 summarizes the number of current programs sorted by level of award.

Table 4. All Programs by Type of Award

Type of Award	Number of WCC Programs
Certificate of Completion	2
Certificate	50
Advanced Certificate	24
Post-Associate Certificate	4
Certificates	80
Associate in Applied Science	32
Associate in Arts	16
Associate in Science	11
Degrees	59

Total WCC Programs by Award Type	139
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These programs are categorized either as career degree/certificate programs or as university transfer programs. Career degree/certificate programs prepare students for jobs and career advancement.

Within the career degree/certificate classification, WCC offers 116 programs. The programs are listed in Section C Appendix A.

WCC offers 23 programs designed specifically for transfer students. These programs are listed in Section C Appendix B.

8. ***Workforce development and community enrichment.*** In support of the WCC mission, the Economic and Community Development Division professionally develops and personally enriches the lives of people and organizations by providing relevant training programs, services and solutions, which meet the needs of the greater Washtenaw Community. The ECD staff does the following:
- a. Plays a catalytic role in economic development, by participating and supporting local, regional and state economic development initiatives and by staying abreast of occupational trends that lead to training and organizational development opportunities;
 - b. Serves the educational needs of employers, by identifying customer needs, creating and delivering customer-driven solutions and providing accessibility to training, services and information;
 - c. Creates partnerships that support local and regional economic and community development; and
 - d. Establishes initiatives to ensure student success through programming, assessment, articulation and support services.

Serving approximately 6,000 students annually, WCC Workforce Development and Community Enrichment develops and delivers more than 700 classes in foundation skills, entry-level employment training, professional development seminars, customized contract training, and personal interest. Training in the areas of health care, information technology, connected transportation and infrastructure, and advanced manufacturing is a specific focus.

As society and the workplace continues to move to prioritize learning and open education for its members, the residents of Washtenaw County will look toward WCC for programs and courses that help them achieve their personal and career goals, and they will do this several times during their lives. The implications of the lifelong learning trend as related to space, facilities, and equipment will have a major influence on planning for the next five years.

Washtenaw County is unique in the state in terms of its high percentage (48%) of adults, those 25 and older, who hold at least a bachelor’s degree. Reflective of this demographic and of the need for lifelong learning, nearly 15 percent of the WCC student body already holds a bachelor’s degree or higher. WCC accepts this unique situation and melds these students into the educational and training programs of the school, an effort that is a benefit to all of our students, broadening perspectives, raising awareness, modeling continuous learning, and sharing in success and growth.

Customized Training: The Workforce Development team at WCC are experts setting up training programs to upskill the workforce and improve a company's performance. Example partnerships include:

- Home Health Aide: WCC teamed up with Kennedy Care, a home health care service provider headquartered in Ann Arbor to create a two-week Home Health Aide course designed to provide the training necessary to prepare students to perform basic care in a home care setting. According to U.S. Department of Labor statistics, the number of home health aide jobs is expected to increase by 41 percent by 2026 – a growth that translates to nearly 1 million new positions.
- Building Maintenance Technician: In partnership with McKinley, Inc., WCC developed and launched a three-week job readiness program to train building maintenance professionals for employment at the company's apartment and housing units around the Ann Arbor/Ypsilanti area. Students who completed the first paid Maintenance Apprenticeship Program are on the job now.

9. ***Eastern Washtenaw County Outreach and Support:*** In eastern Washtenaw County, WCC offers job coaching, resume writing, and interviewing skills at our Harriet Street office, which is co-located with Michigan Works! Southeast. Other services offered at this office include workforce development training for those looking to advance their career or obtain an entry-level job as well as certification testing and specific industry skills and free ACT WorkKeys® preparation.

10. ***Livingston County:*** Washtenaw Community College has also collaborated with Livingston County ISD to begin offering cybersecurity courses to high school students in the area through the Livingston County Early College. These students will have the opportunity to continue at WCC to earn an associate's degree in Cybersecurity.

11. ***Health and Fitness Center:*** Washtenaw Community College students are able to take advantage of fitness classes at our Health and Fitness Center. As a certified Medical Fitness Facility, the Health & Fitness Center at Washtenaw Community College offers the highest in quality staffing, equipment and programming under a medical oversight. Fitness staff members are required to have four-year degrees and many maintain additional certifications in specialty areas such as arthritis or cardiac health. Programs are regularly reviewed by the center's Medical Advisory Board, which includes physicians from St. Joseph Mercy Ann Arbor Hospital and a physical therapist from Probility Physical Therapy. All staff members are required to hold certifications in CPR, AED and First Aid.

c. Identify other initiatives that may impact facilities usage.

The College continues to address the changing economic, sociological, educational, and technological environment by creating new programs. Therefore, WCC has continued to examine a variety of ways to meet the community's demand for programs that prepare workers for newly emerging fields in technology, balancing this need with the growing need for appropriate space. Several initiatives have resulted from this examination.

United Association Union of Plumbers, Pipefitters, Welders and HVAC Service Technicians (UA). Every year for the last 29 years, the college has hosted the weeklong Instructor Training Program for the UA in classrooms and laboratories across campus. Last year, approximately 2,500 student instructors for the UA and an additional 400 faculty, industry representatives and staff visited Ann Arbor and WCC for an intensive week of hands-on instruction. UA members use the WCC campus facilities, including classrooms, computer labs, mechatronics facility, welding labs, to name a few. According to the Ann Arbor Convention and Visitors Bureau, this program generates over \$8 million in economic development to the local economy.

International Association of Bridge, Structural, Ornamental and Reinforcing Ironworkers Union. WCC continues to hold the Iron Workers Instructor Training Program (ITP) on the WCC campus. Approximately 825 participants attend the program that trains for proficiency in jobs involving welding, structural steel erection, architectural and ornamental ironwork, concrete reinforcement, rigging, and machinery moving and installation – as well as blueprint reading and computer skills for the ever-changing job market. The regional community benefits when the program comes each year, it generates nearly \$5 million in economic impact within Washtenaw County.

In 2017, the college launched a pre-apprenticeship certificate program for Ironworkers. The certificate program teaches some of the skills needed to become a union Ironworker apprentice in the United States and Canada. A combination of classroom and lab training provides real-world experience, including blueprint reading, math, safety, and welding training used by the union Ironworker trade. Students who successfully complete the program receive a certificate of completion and are eligible for advanced standing in the Ironworker Local Union Apprenticeship Training Program.

Operative Plasterers, Cement Masons International Association. WCC signed a five-year agreement with the OPCMIA in 2017, and the union held its first national instructor training program on the campus in June of 2018. Approximately 125 participants attended the training program conducted in the computer labs on campus.

Blended (Mixed Mode) courses. WCC continues to offer classes that blend both online and face-to-face delivery that take advantage of both formats. We continue to increase the number of blended courses offered each semester. WCC offered 193 sections of 169 possible courses with 3,299 enrollments in 2017-2018.

Online (Distance Learning) Courses: Online courses utilize materials such as interactive lectures, video, activities, textbooks and workbooks as well as faculty produced open education resources (OERs), which are free or very low-cost learning and teaching materials such as textbooks made available online for anyone to use. Faculty members engage with students through the college's Blackboard course management system in which students receive feedback from instructors and complete exercises and examinations. In 2017-2018, 810 sections of the 168 possible courses were offered with 18,262 enrollments.

Online Programs: In 2017-2018, twenty-nine (29) programs (20%) were completely available online through distance learning.

Apprenticeship Programs: Since 2016, the college has doubled its apprenticeship program participants to over 100 apprentices in the areas of advanced manufacturing and information technology. With the development of the Center of Excellence for Nursing Education, credit and non-credit divisions will be working to expand apprenticeships to the healthcare industry, as well.

d. Demonstrate the economic development impact of current/future programs (i.e., technical training centers, life science corridor initiatives, etc.).

Health care, information technology and STEM continue to exert a strong influence on the development of programs at WCC as the College supports local workforce trends. Student enrollments remain strong in the areas of criminal justice, automotive, business management, video production, human services worker, health, and science. Preparing highly skilled technical support personnel through occupational programs will continue to be a critical target for the College. A concomitant need will be to expand facilities to house equipment so that these programs can flourish.

WCC plays a significant role in the regional economy and is a sound investment from multiple perspectives. Students benefit from improved lifestyles and increased earnings. Taxpayers benefit from a larger economy and lower social costs. Finally, the community as a whole benefits from increased job and investment opportunities, higher business revenues, greater availability of public funds, and an eased tax burden. A recent EMCI study demonstrated that in 2016-17, the college had a \$524.1 million impact on the local region through combined operations, student spending, and alumni employment.

WCC's important partnership with the United Association has spurred initiatives such as the development of online courses and programs. The success of this national partnership has additionally led to the development of national partnerships with the Ironworkers, the International Brotherhood of Electrical Workers (IBEW), the International Union of Bricklayers and Allied Craftworkers, and the Operative Plasterers' and Cement Masons International Association (OPCMIA)

The college is active in its connections to regional economic development organizations as it seeks the best pathways to educating and credentialing students and preparing them for employment. WCC President, Dr. Rose B. Bellanca has led the development and recruitment of talent for Washtenaw County through the Ann Arbor SPARK Talent Committee, currently serves on the Board of Directors and is a member of the Michigan Works! Southeast Workforce Development Board and is on the board for the American Center for Mobility. Further, the WCC Workforce Development Department has served as a sub-contractor to provide the Michigan Works! Southeast Agency with business and career services that address the needs of the un- and underemployed. Finally, the Vice President of Economic, Community & College Development Dr. Michelle Mueller serves on the Workforce Intelligence Network's (WIN) Board of Directors for Southeast Michigan, as well as the Washtenaw County Workforce Development Board (alternate), Greater Ann Arbor Region Committee and the ITS Michigan Board of Directors. In addition, Brandon Tucker Dean of Advanced Technologies and Public Service Careers serves on the Michigan Council on Future Mobility housed at the Michigan Department of Transportation.

Appendix A. Career Degree/Certificates

<ul style="list-style-type: none"> • Health Sciences (14)
<ul style="list-style-type: none"> ○ Computed Tomography (CT) Post-Associate Certificate
<ul style="list-style-type: none"> ○ Dental Assisting Certificate
<ul style="list-style-type: none"> ○ Health Care Foundations Certificate
<ul style="list-style-type: none"> ○ Magnetic Resonance Imaging (MRI) Post-Associate Certificate
<ul style="list-style-type: none"> ○ Mammography Post-Associate Certificate
<ul style="list-style-type: none"> ○ Medical Billing and Coding Certificate
<ul style="list-style-type: none"> ○ Nursing Assistant Skills Training Certificate of Completion
<ul style="list-style-type: none"> ○ Nursing, Licensed Practical Nurse to Registered Nurse Associate in Applied Science
<ul style="list-style-type: none"> ○ Nursing, Registered Associate in Applied Science
<ul style="list-style-type: none"> ○ Pharmacy Technology Certificate
<ul style="list-style-type: none"> ○ Physical Therapist Assistant Associate in Applied Science
<ul style="list-style-type: none"> ○ Radiography Associate in Applied Science
<ul style="list-style-type: none"> ○ Sterile Processing Certificate
<ul style="list-style-type: none"> ○ Surgical Technology Associate in Applied Science
<ul style="list-style-type: none"> • Business and Culinary Management (23)
<ul style="list-style-type: none"> ○ Accounting Associate in Applied Science
<ul style="list-style-type: none"> ○ Accounting for Business Certificate
<ul style="list-style-type: none"> ○ Administrative Assistant I Certificate
<ul style="list-style-type: none"> ○ Administrative Assistant II Advanced Certificate
<ul style="list-style-type: none"> ○ Applied Data Science Certificate
<ul style="list-style-type: none"> ○ Baking and Pastry Arts and Management Associate in Applied Science
<ul style="list-style-type: none"> ○ Baking and Pastry Essentials Certificate
<ul style="list-style-type: none"> ○ Baking and Pastry Skills and Operations Certificate
<ul style="list-style-type: none"> ○ Business Office Administration Associate in Applied Science
<ul style="list-style-type: none"> ○ Business Sales and Marketing Certificate
<ul style="list-style-type: none"> ○ Computer Software Applications Certificate
<ul style="list-style-type: none"> ○ Core Business Skills Certificate
<ul style="list-style-type: none"> ○ Culinary Arts and Management Associate in Applied Science
<ul style="list-style-type: none"> ○ Culinary Essentials Certificate
<ul style="list-style-type: none"> ○ Culinary Skills and Operations Certificate
<ul style="list-style-type: none"> ○ Entrepreneurship and Innovation Certificate
<ul style="list-style-type: none"> ○ Human Resource Management (HRM) Certificate
<ul style="list-style-type: none"> ○ Management Advanced Certificate
<ul style="list-style-type: none"> ○ Management Associate in Applied Science
<ul style="list-style-type: none"> ○ Retail and Business Operations Certificate
<ul style="list-style-type: none"> ○ Retail Management Associate in Applied Science
<ul style="list-style-type: none"> ○ Supply Chain Management Associate in Applied Science
<ul style="list-style-type: none"> ○ Supply Chain Operations Certificate
<ul style="list-style-type: none"> • Human Services, Pre-Education & Public Safety (5)
<ul style="list-style-type: none"> ○ Child Care and Education Advanced Certificate
<ul style="list-style-type: none"> ○ Child Care Professional Associate in Applied Science

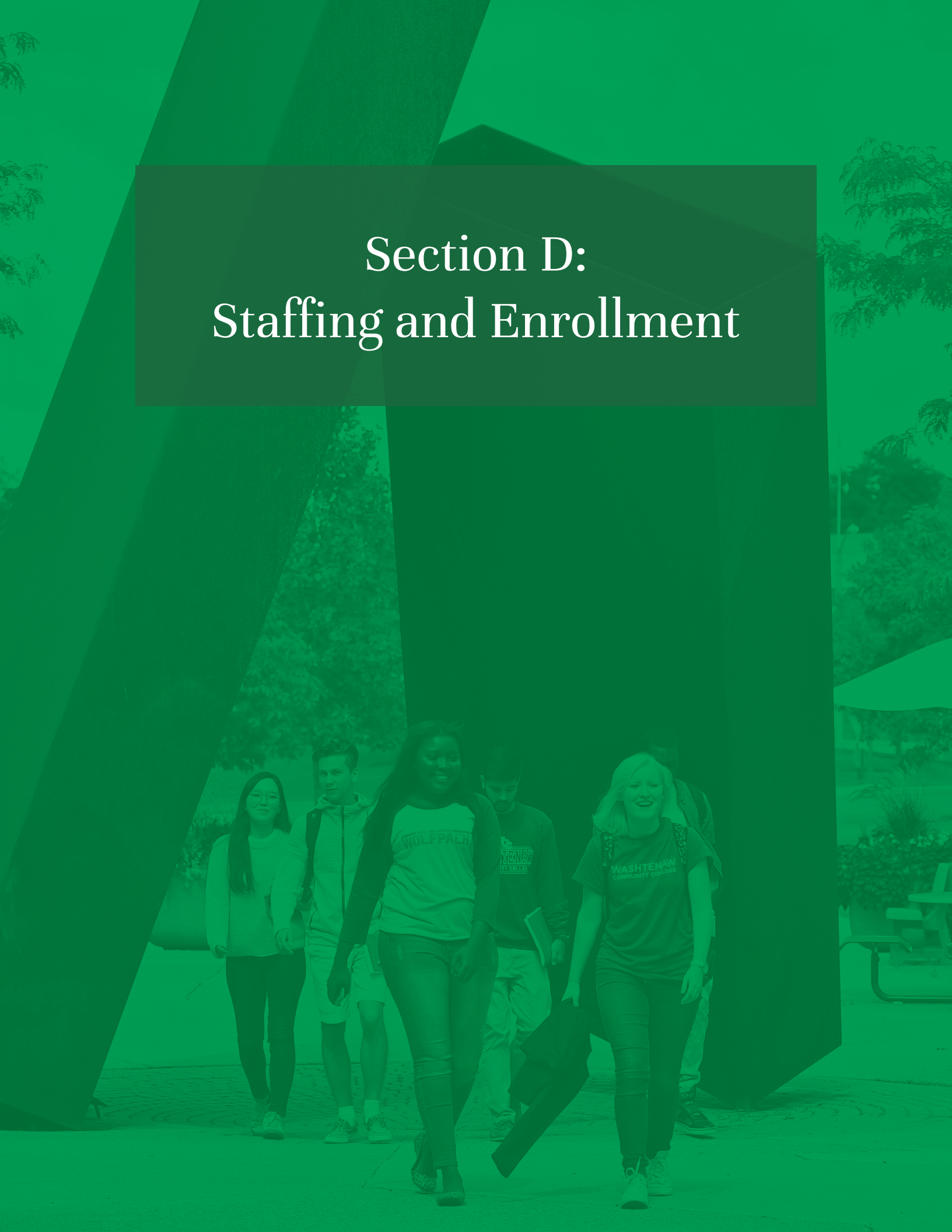
○ Child Development Certificate
○ Criminal Justice - Law Enforcement Associate in Applied Science
○ Police Academy Certificate
• Manufacturing & Automotive (19)
○ Advanced Machine Tool Programming Advanced Certificate
○ Auto Body Repair Certificate
○ Automotive Service Technology Associate in Applied Science
○ Automotive Services Technician Certificate
○ Automotive Test Technician Associate in Applied Science
○ Collision Repair and Refinish Technician Advanced Certificate
○ Custom Auto Body Fabrication and Chassis Design Advanced Certificate
○ Engineering Technologist – Manufacturing Associate in Applied Science
○ Fluid Power Certificate
○ Industrial Electronics Technology Certificate
○ Industrial Electronics Technology II Advanced Certificate
○ Introduction to Manufacturing Processed Certificate of Completion
○ Machine Tool Programming (CNC) Certificate
○ Machine Tool Setup and Operation Certificate
○ Mechatronics Associate in Applied Science
○ Motorcycle Service Technology I Certificate
○ Motorcycle Service Technology II Advanced Certificate
○ Occupational Studies Associate in Applied Science
○ Powertrain Development Technician Associate in Applied Science
• Broadcast, Communication, Visual, Digital & Fine Arts (21)
○ 3D Animation Arts Associate in Applied Science
○ 3D Animation Certificate
○ Animation for Film and Broadcast Advanced Certificate
○ Animation for Game Art Advanced Certificate
○ Audio Production and Engineering Certificate
○ Broadcast Arts Associate in Arts
○ Digital Strategy Advanced Certificate
○ Digital Video Advanced Production Advanced Certificate
○ Digital Video Production Associate in Arts
○ Digital Video Production Certificate
○ Fine and Performing Arts Certificate
○ Graphic Design Associate in Applied Science
○ Graphic Design Certificate
○ Photographic Imaging Certificate
○ Photographic Technology Associate in Applied Science
○ Technical Communication Associate in Arts
○ Technical Communication Certificate
○ Web Design Advanced Certificate
○ Web Design and Development Associate in Applied Science
○ Web Design and Development Certificate

○ Web Development Advanced Certificate
• Science, Computer Technology, Engineering & Math (12)
○ C++ Programming Advanced Certificate
○ Computer Networking Academy I Advanced Certificate
○ Computer Networking Operating Systems I Advanced Certificate
○ Computer Systems and Networking Associate in Applied Science
○ Computer Systems Technology Certificate
○ Cybersecurity Associate in Applied Science
○ Foundations of Information Systems Certificate
○ Linux/UNIX Systems Certificate
○ Mobile Device Programming Advanced Certificate
○ Principles of Cybersecurity Certificate
○ Program in Java Advanced Certificate
○ Web Database Programming Professional Advanced Certificate
• Skilled Trades & Construction (15)
○ Cabinetmaking/Millwork Technology Advanced Certificate
○ Construction Management Associate in Arts
○ Construction Technology Associate in Science
○ Construction Technology I Certificate
○ Construction Technology II Advanced Certificate
○ Engineering and Design Technology Certificate
○ Facility and Energy Management Certificate
○ Heating, Ventilation, Air Conditioning and Refrigeration - Commercial Trade Advanced Certificate
○ Heating, Ventilation, Air Conditioning and Refrigeration Associate in Applied Science
○ Heating, Ventilation, Air Conditioning, and Refrigeration - Residential Certificate
○ Ironworkers Pre-Apprenticeship Certificate
○ Sustainable Building Practices Certificate
○ Welding Technology Associate in Applied Science
○ Welding and Fabrication Principles Certificate
○ Welding and Fabrication Advanced Applications Advanced Certificate
• Apprenticeship & Union Programs (7)
○ Apprentice Completion Certificate
○ Construction Supervision Associate in Applied Science
○ Construction Supervision Associate in Science
○ Construction Supervision Certificate
○ Industrial Training Associate in Applied Science
○ Industrial Training Associate in Science
○ Journeyman Industrial Associate in Applied Science

Appendix B. Transfer Degrees and Certificates

Addiction Studies Post Associate Certificate
Business Associate in Arts
Computer Science: Programming in Java Associate in Science
Criminal Justice Associate in Arts
Early Childhood Education Associate in Arts
Elementary Education Associate in Arts
English as a Second Language Certificate
Environmental Science Associate in Science
Exercise Science Associate in Science
Film Studies Associate in Arts
Fine Arts Associate in Arts
General Studies in Math and Natural Sciences Associate in Science
Global Studies Associate in Arts
Health Program Preparation Associate in Science
Human Services Associate in Arts
Information Systems: Programming in C++ Associate in Science
Journalism Associate in Arts
Liberal Arts Transfer Associate in Arts
Math and Science Associate in Science
Nursing Transfer (EMU School of Nursing) Associate in Applied Science
Paralegal Studies/Pre-Law Associate in Arts
Pre-Engineering Science Transfer Associate in Science
Secondary Education Associate in Arts

Section D: Staffing and Enrollment



STAFFING AND ENROLLMENT

Colleges and universities must include staffing and enrollment trends in the annual 5-year comprehensive master plans.

- a. Describe 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.)**

As of October 15, 2018; 12,337 students are enrolled for the Fall 2018 semester. Overall, 26% of these students are enrolled on a full-time basis (12 or more credits). The percentage of full-time students varies by program area.

For the Fall 2018 semester, the program area full-time enrollments are as follows:

Division	Percent Full-Time
Humanities and Social Science	27%
Business and Computer Technologies	31%
Math, Science, and Engineering	29%
Advanced Technologies & Public Service	21%
Health	19%
WCC Total Enrollment	26%

The vast majority of the College's programs are accessed through traditional classroom experiences. In Fall 2018, the College is offering 126 credit courses (295 sections) in a full on-line mode and 42 credit courses (91 sections) in a blended (½ on-line, ½ traditional classroom) format.

- b. Project enrollment patterns over the next five years (including distance learning initiatives)**

Since 2012-13 our degree credit enrollments have been comparatively flat in an environment in which most community colleges have seen large enrollment deficits. The college's degree enrollment for Fall 2018 is a slight decrease from Fall 2017. The college has put many factors in place in the last year to enhance recruitment, enrollment and retention, including personal calling campaigns, targeted recruitment, increased flexible scheduling, expanded student services, and many other measures to attract and keep students at WCC. It is expected that over the next five years,

enrollment will remain flat or see incremental increases, with a principal growth occurring in distance learning courses and programs.

In considering enrollments over the next five years, several factors need to be examined:

- SEMCOG projections indicate that the overall population in the region will rise slightly through 2025; there will be slightly slower growth in traditional age groups, but substantial increases in the older adult population. We expect to see enrollment growth in the next five years in the older adult population and need address this population's needs, particularly for retraining and career changing in high demand careers.
- Over the last five years, there has been steady growth in the college's distance education offerings, with an 85% increase in online enrollments and 20% increase in mixed mode enrollments during that time. The College is a participant in the SARA state reciprocity agreement to offer online programming in 49 states and is approved by the Higher Learning Commission to offer up to 100% of its programs and courses online. The college expects this to be a significant growth area over the next five years, consistent with past enrollment patterns.
- With the State's expansion in the authorization of Early Middle Colleges, we have also experienced increasing numbers of middle college students. Local districts are taking advantage of our on-campus offerings and students from middle colleges outside Washtenaw County are taking advantage of our on-line offerings.
- While distance learning classes are seeing enrollment growth, only about 15 percent of our student headcount exclusively take online classes. The majority (85%) of students attend traditional or blended classes. In addition, the support staff for online classes would benefit from working in the Student Learning Center of Excellence with the rest of the College's student support staff.

c. Evaluate enrollment patterns over the last five years

After having a slight increase from Fall 2016 to Fall 2017, the college experienced a slight decrease in enrollment this fall. WCC has seen a less than 1% drop in enrollment over the last five years. This drop is much smaller than the enrollment drop of other Michigan colleges that have experienced double digit drops in enrollment over the same time period.

The College continues to earn and enjoy the support of the community and of our constituents. We respond to the changing needs of our students, adding sections and courses as appropriate. The current economic situation has driven many students to seek retraining and skills upgrades. WCC has both marketed its ability to provide such services and we have enrolled many new students as a result. In a different direction, we see more of our students continue their formal education beyond the levels provided here at the College. We expect that pattern to continue.

Students come to Washtenaw Community College representing the diversity within our community. Many – about 14 percent – are first generation college students, about five percent are single parents, about three percent are veterans, and another three percent request physical accommodation. The average age of our students is 26 and 14.8 percent (1,838) are college graduates returning to school to gain new skills to use in their current field or to prepare for a new career in another field. About 70 percent of all new students have a developmental need in math and 20 percent have a developmental need in reading based on prior academic performance and college placement exams. Regardless of their background, all of our students come through our doors with the expectation that we will prepare them with the skills and knowledge they need to thrive in a rapidly evolving educational, technological, and economic environment and ultimately succeed in a job that may not exist yet. Employers and partners in business and industry expect that we will train, prepare and deliver a high-skilled workforce to meet their quickly changing needs.

d. Student/Faculty Ratios

The ratios for instructional staff to students for major program areas at the College may be calculated using credit hour or by contact hour generation. Student/faculty FTE ratios based on student credit hours where one student FTE equals 30 semester hours are as follows:

General Education	21.3
Business / Computer	19.7
Technical	16.1
Health care	13.1

Student / faculty FTE ratios based on contact hour generation where one student FTE equals 480 contact hours are as follows:

General Education	20.3
Business / Computer	18.1
Technical	11.4
Health care	7.6

e. Project future staffing needs based on 5-year enrollment estimates and future programming changes.

It is anticipated that the college’s current staffing models will accommodate projected program growth. Positions that are currently vacant will be filled to meet the anticipated needs in program demand. Under the leadership of current full-time faculty members, part-time instructors will be employed to meet any additional demand.

The average credit hours taken per student is 8.1 for Fall 2018. This is, of course, a statistic that is relatively fixed given the large number of our students. An analysis of

our underlying financial base indicates that, in order to fund the institution, we need to increase both headcount and credit hours. The use of part-time faculty remains at acceptable levels. During the previous academic year, 2017-18, we experienced less than a 31% use of part-time staff (according to the computation specified in the collective bargaining agreement) whereas the agreed upon limit is 37%. Thus, the College has room to adjust to new initiatives and demands. At the same time, the College continues to manage its staffing allocations to provide full-time faculty support appropriate to the growth and decline within given academic areas.

f. Identify current average class size and projected average class size based on institution’s mission and planned programming changes.

Average class size is determined by many factors, not the least of which is the maximum allowed class size, a factor that is influenced by facilities, collective bargaining agreements, accreditation specifications, safety, and enrollment demand. Also influencing enrollment is the location and type of course. We calculated the classroom utilization at the end of the semester, though enrollment is often higher at the beginning of the semester. It has been calculated that we lose approximately two (2) students from our larger sections through attrition. At the end of the semester we calculate an average class utilization of 82% of the maximum enrollment. Shown below are the average class size and utilization percentage by some of our common maximum enrollment options.

Max Enrollment	Fall 2017	Winter 2018	Both	Average for Both
30	23.8	23.1	23.5	78%
25	20.6	20.3	20.5	82%
24	20.6	19.6	20.1	84%
22	18.2	17.1	17.7	81%
20	17.7	16.4	17.0	85%
All	18.9	18.0	18.5	82%

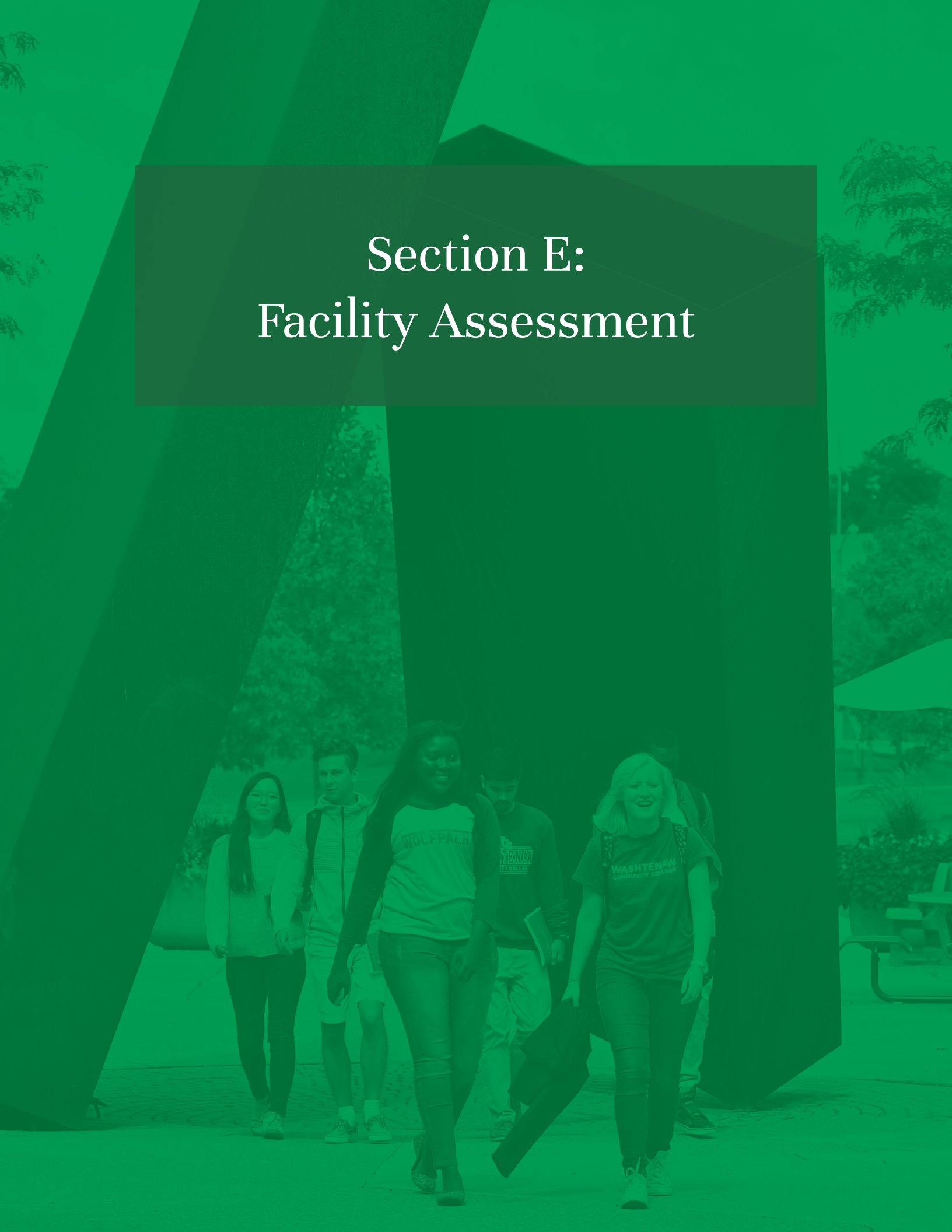
Further influencing the utilization of classroom space is the location of courses. Clinical courses have the highest utilization rate of courses scheduled outside of main campus with an average 86% of the seats filled at the end of the semester.

SITE	AVERAGE
Main Campus	91%
Clinical	86%
Extension	75%
North	66%

We continue to work to increase our fill ratio for all of our sections while balancing our other obligations. We must provide the courses that students need to complete their degree program even if those sections are not at full enrollment. Further, we have an obligation to our constituents to provide courses at convenient locations throughout the county. The small number of off-campus sites has a minimal impact

(approximately -0.7%) on our overall fill rate. The value of these off-campus sections is reviewed on a regular basis and we work to balance fiscal responsibility with service to the community. We anticipate that the average class size will remain constant over the next few years.

Section E: Facility Assessment



FACILITY ASSESSMENT

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

- a. **Summary description of each facility (administrative, classroom, biology, hospital, etc.) according to categories outlined in “net-to-gross ratio guidelines for various building types,” DTMB-Office of Design and Construction Capital Outlay Design Manual, appendix 8. If facility is of more than one “type,” please identify the percentage of each type within a given facility.**

See attached assessment document.

- b. **Building and/or classroom utilization rates (percentage of rooms used, and percent capacity.) Identify building/classroom usage rates for peak (M-F 10-3), off-peak (M-F, 8-10 a.m., 3-5 p.m.) evening, and weekend periods.**

See facility assessment data in attachments.

- 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.);**

See attached assessment document.

- d. **Functionality of existing structures and space allocation to program areas served;**

See attached assessment document.

- e. **Replacement value of existing facilities (insured value of structures to the extent available);**

The replacement value of existing College facilities as of June 30, 2018, excluding land is \$252,228,943.

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

See attached assessment document.

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

See attached assessment document.

- h. Adequacy of existing utilities and infrastructure systems to current and 5-year projected programmatic needs;**

See attached assessment document.

- 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?**

The College has a campus-wide energy plan with the goals of improving overall efficiency of the campus operations and reducing energy consumption and greenhouse gas inventories. An energy audit of the campus buildings was completed in December 2012 by an outside consulting firm to assess the areas needing greater attention and to help develop a comprehensive energy conservation implementation plan. Through the replacement of outdated and inefficient equipment combined with the use of technology, the College continues the campus-wide energy plan for savings in budget, greenhouse gas emissions, and improved sustainability.

- j. Land owned by the institution, and includes 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 currently owns 291 acres of land. This acreage provides the College with the capacity to expand in the future, if needed, but also serves as an “outdoor laboratory” with its wetlands and wildlife. The land is in a very desirable location, and could be sold, if necessary, subject to rezoning.

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

The College currently has five buildings obligated to the State Building Authority for leases. These buildings include:

1. Business Education Building (BEB) in 1997. The lease expires in 2032.
2. Technology Education Building (GMB) in 2002. The lease expires in 2037.
3. Plumbers and Pipefitters Addition (GLRTC) in 2005. The lease expires in 2040.
4. Skilled Trades Training Program Renovations (OEB) in 2012. The lease expires in 2052.
5. Skilled Trades Training Program Renovations (HLC) in 2012. The lease expires in 2052.

Fall Term 2018 Room Usage Data

	Peak	Off Peak	Evening
All Main Campus	63%	60%	66%

*The main campus **average fill rate** in the peak period was **63%**, in the off-peak period it was **60%**, and in the evening period it was **66%**, about the same as last year despite our strong shift to Distance Learning.*

These three spreadsheets show the fill rate for classrooms during three periods; the peak start times (10:00 a.m. to 3:00 p.m.), the off-peak start times (before 10:00 a.m. and 3:00 p.m. to 5:00 p.m.), and the evening start times (5:00 p.m. and later). Sections will appear on two spreadsheets if they straddle two periods. The right-most column shows percent of seating capacity used by enrolled students in early September in the Fall 2018 semester after cancellation of low enrollment classes. The spreadsheets also display the **average fill rate** at the bottom right.

The data is for main campus buildings only, not extension centers and other off-campus locations. The Family Education Building is excluded. The rooms included are main classrooms only; adjunct spaces and special purpose rooms are excluded. WCC has about 240 main campus classrooms (the precise number depends on what spaces are counted).

Only credit courses are included; excluded are all non-credit courses, distance learning classes (except Blended Classes, which have some on-campus meetings and are therefore included), special events, meetings, open labs, classroom prep tasks, Police Academy classes, and classes that are exclusively for Washtenaw Technical Middle College (WTMC), a separately administered charter school. Cancelled classes are excluded. Also excluded are the many sections that meet in the English Department's Writing Lab, since these students come and go at will; including these separately or combined would distort the averages due to the large number of sections involved.

We have many cross-listed classes, which are separate sections scheduled to meet together in the same room. These were consolidated and the enrollments combined. Where two or more cross-listed classes have been combined, the spreadsheet lists one of the classes with an entry in the "Xlist" column and the enrollment listed on that line is the combined enrollment for all sections in that room.

The averages are lowered somewhat by the inclusion of some large spaces hosting small classes, such as the dining room (SC 122) used sometimes for Culinary Arts classes and large lecture halls (such as LA 375) and by the peculiarities of scheduling in the Welding Lab.

Also, many of the lecture portions of science classes meet in combined lectures. This is not reflected in the spreadsheet. If there was a practical way to combine these lines of the spreadsheet, it would also have the effect of raising the fill rate averages. The spreadsheet shows only the enrollment by section, typically a half or third of the total number of students in the large lecture halls at one time.

Also, of course, room fill rates were higher at the beginning of the semester before students dropped classes.

It should also be noted that since classrooms have other uses not included here, such as the non-credit classes, meetings, special events, charter school classes, and other uses mentioned above, the efficiency of room utilization is higher than these fill rate numbers suggest.

Finally, it should be noted that the room fill rates have not been reduced significantly even though more students are taking online classes through Distance Learning.

Deferred Maintenance Report

Updated September 2018
Facilities Management

Glossary

Current Replacement Value (CRV)

The CRV is the cost to construct a replacement building in today's dollars. The figure is based on the square footage of the current structure and the estimated current construction cost for that type of structure.

One Year Deferred Maintenance Backlog (1 YR DMB)

This is the value of projects that have been deferred and require completion in order to safely maintain facilities and related infrastructure for their current use. The 1 year DMB amounts shown are for items requiring immediate attention to fix critical problems.

Facilities Condition Index (FCI)

Simply put, the FCI is the current DMB divided by the CRV. The resulting number is compared against nationally accepted standards and used to determine the condition of the building, campus or college.

FCI < 5% = Good

FCI > 5% and < 10% = Fair

FCI > 10% = Poor

One Year DMB Excess

This represents the amount the DMB exceeds the APPA benchmark of a building with a 5% FCI - essentially the dollar amount to be spent immediately to reduce the DMB to attain the APPA rating of "Good". In situations where a building is in better than "Good" condition (FCI < 5%), the one year DMB excess is shown as zero.

Five Year Deferred Maintenance Backlog (5 Yr DMB)

Similar to the One Year DMB, the Five Year DMB represents the total value of projects that will require attention within the next five years to repair and/or replace problems items before they become critical.

Five Year DMB Excess

Similar to the One Year DMB Excess value, this amount represents the investment to bring the DMB in line with the APPA benchmark of 5% of the Current Replacement Value. In situations where a building is in better than "Good" condition - a bit more difficult over a five year span, the five year DMB excess is shown as zero.

FCI SUMMARY FOR ALL CAMPUS BUILDINGS

	<u>Building</u>	<u>FCI</u>	<u>Rating</u>
1	Athletic Field House (AFH 027)	1.70%	Good
2	Business Education Building (BE 013)	6.10%	Fair
3	Chemical Storage Building (CS 019)	12.60%	Poor
4	Crane LASB (LASB 002)	6.20%	Fair
5	Energy Center (EC 017)	10.50%	Poor
6	Family Education Building (FE 006)	19.00%	Poor
7	Great Lakes Regional Training Center (GL 024)	5.40%	Fair
8	Gunder Myran Building (GM 022)	4.50%	Good
9	Hazardous Materials Building (HM 014)	14.20%	Poor
10	Health and Fitness Center (HFC 025)	5.70%	Fair
11	Landau Skilled Trades Building (HL 028)	1.50%	Good
12	Maintenance Building (MB 012)	32.70%	Poor
13	Morris Lawrence Building (ML 011)	23.00%	Poor
14	Motorcycle Storage Building (MS 026)	6.40%	Fair
15	Whitworth Occupational Education Building (OE 007)	5.00%	Good
16	Parking Structure (PS 029)	1.00%	Good
17	Damon B. Flowers Building (DF 008)	17.20%	Poor
18	Pump House (Campus Utility Building CU 015)	2.00%	Good
19	Storage and Receiving Building (SRB 016)	11.60%	Poor
20	Student Center Building (SC 004)	13.00%	Poor
21	Technical and Industrial Building (TI 001)	4.90%	Good

Deferred Maintenance Report - Entire College

College Stats

Number of Buildings	21
Oldest Building	1970
Newest Building	2012
Avg. Building Age	23
Avg. Cost per S.F. (total = 1,160,633 s.f.)	\$210

Facilities Condition Index - Entire College

	First Year Data					Five Year Data				
1,201,820	\$252,228,943	\$20,746,502	\$8,135,055	8.2%	Fair	\$65,110,326	\$52,498,879	25.8%	\$5,044,579	\$18,066,644
TOTAL S.F.	CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Athletic Field House

Campus:	Main	Use Types:		Notes:	
Bldg. No.:	AFH (027)		100% Athletics		
Building:	Athletic Field House				
Area (s.f.):	2,417				
Year Built:	2010				
Floors:	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	53	\$261,375	1	\$2,614	1	\$2,614	
Roof	15	\$48,201	3	\$1,446	3	\$1,446	Metal roof.
Glazing		\$0					None
Cladding	4	\$14,996	5	\$750	8	\$1,200	Brick
HVAC	1	\$3,213	3	\$96	4	\$129	
Plumbing	2	\$8,034	3	\$241	5	\$402	Well pump system replaced due to failure and upgraded for more efficient system.
Primary/Secondary	4	\$13,390	2	\$268	5	\$669	
Distribution	4	\$16,067	0	\$0	1	\$161	
Lighting	1	\$5,356	1	\$54	2	\$107	Outdoor lighting system upgraded to modern lighting control system.
Voice/Data	1	\$2,142	0	\$0		\$0	
Ceilings	2	\$5,892	0.5	\$29	2	\$118	
Walls	4	\$16,603	1	\$166	2	\$332	
Doors	4	\$16,067	2	\$321	5	\$803	
Floors	1	\$3,213	1	\$32	5	\$161	
Bldg., Fire, ADA, Elevator	1	\$5,356	1	\$54	2	\$107	
Immed. Site, Ext. Ltg., etc.	3	\$10,711	10	\$1,071	3	\$321	
CRV Totals:	100	\$430,615		\$7,142		\$8,569	

First Year Data					Five Year Data				
\$430,615	\$7,142	(\$14,389)	1.7%	Good	\$15,711	(\$5,819)	3.6%	\$8,612	\$11,755
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Business Education Building

Campus:	Main	Use Types:	Notes:
Bldg. No.:	BE (013)	15% Lab	
Building:	Business Education	25% Administration	
Area (s.f.):	41,673	60% Classroom	
Year Built:	1996		
Floors:	2		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	20	\$1,452,304	2	\$29,046	10	\$145,230	Interior floor settlement causing tile to crack and loosen in corridor 142. Gypsum Board exterior soffits replaced with Drivit cementious material.
Roof	5	\$363,076	20	\$72,615	50	\$181,538	Original single ply EPDM ballast roof, in fair condition.
Glazing	4	\$290,461	0	\$0	5	\$14,523	Original, no problems identified.
Cladding	7	\$508,306	15	\$76,246	15	\$76,246	Brick/Precast. Minor efflorescence on surface of brick on west elevation of building. Exterior soffit along north and east elevations have been replaced.
HVAC	14	\$1,016,613	3	\$30,498	5	\$50,831	Oringinal two boiler replaced with three condensing boiler. DDC system upgrade to currrent industry standard. Space VAV units replaced for better efficiency and space comfort.
Plumbing	9	\$653,537	2	\$13,071	5	\$32,677	Minor issues reported.
Primary/Secondary	5	\$363,076	0	\$0	0	\$0	No reported problems.
Distribution	6	\$435,691	0	\$0	0	\$0	No reported problems.
Lighting	5	\$363,076	5	\$18,154	10	\$36,308	Retrofitted ballasts to provide for dimming have control failures. Lutron dimming ballasts averaging replacement of 25 per year since building has opened.
Voice/Data	3	\$217,846	0	\$0	0	\$0	No reported problems.
Ceilings	4	\$290,461	3	\$8,714	5	\$14,523	Ceiling grid damaged at pull own screens when screens were mounted to grid. Screens are now hung from structure above.
Walls	4	\$290,461	5	\$14,523	5	\$14,523	Wall finishes were moved away from the Zolotone finish to solid color for easier repair and maintenance.
Doors	3	\$217,846	5	\$10,892	8	\$17,428	Exterior door hardware has had to be repaired, presently operating ok. Interior door hardware is due for upgrade.
Floors	4	\$290,461	15	\$43,569	25	\$72,615	Quarry tile cracks in corridor 142 from floor settlement, otherwise no problems identified. Carpet was replaced in 2014 with rubber floor tile on the second floor.
Bldg., Fire, ADA, Elevator	4	\$290,461	25	\$72,615	0	\$0	Fully sprinkled building; fire alarm system was upgraded to an addressable system in 2014; ADA compliant.
Immed. Site, Ext. Ltg., etc.	3	\$217,846	25	\$54,461	5	\$10,892	Some exterior paving heaving along the southeast corner of the building potential tripping hazard. Additional exterior security camera is required to cover west portion of Parking lot #4
CRV Totals:	100	\$7,261,518		\$444,405		\$667,334	

First Year Data					Five Year Data				
\$7,261,518	\$444,405	\$81,329	6.1%	Fair	\$1,111,738	\$748,663	15.3%	\$145,230	\$367,578
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Chemical Storage

Campus:	Main	Use Types:	100% Chemical Storage	Notes:	Prefabricated unit.
Bldg. No.:	CS (019)				
Building:	Chemical Storage				
Area (s.f.):	193				
Year Built:	2001				
Floors:	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	60	\$58,264	10	\$5,826	15	\$8,740	Self contained prefabricated storage unit. Roof, walls and floors are integral parts of structure.
HVAC	20	\$19,421	25	\$4,855	50	\$9,711	Replace ventilation system.
Plumbing	5	\$4,855	0	\$0	0	\$0	Spill containment drain system.
Primary/Secondary	2	\$1,942	5	\$97	10	\$194	Primary: none. Secondary: minimal, PM and parts replacement.
Distribution	2	\$1,942	5	\$97	15	\$291	Minimal, no reported problem.
Lighting	2	\$1,942	5	\$97	10	\$194	Minimal explosion-proof fixtures, no reported problems.
Doors	5	\$4,855	25	\$1,214	25	\$1,214	Door hardware needs to be upgraded including single door cyclinder cores.
Bldg., Fire, ADA, Elevator	2	\$1,942	0	\$0	0	\$0	Not sprinkled.
Immed. Site, Ext. Ltg., etc.	2	\$1,942	0	\$0	0	\$0	Minimal, no reported problems.
CRV Totals:	100	\$97,106		\$12,187		\$20,344	

First Year Data					Five Year Data				
\$97,106	\$12,187	\$7,332	12.6%	Poor	\$32,531	\$27,675	33.5%	\$1,942	\$8,448
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Crane Liberal Arts and Science Building

Campus:	Main	Use Types:		Notes:	
Bldg. No.:	LASB (002)		10% Auditorium		Major addition in 1999. Major lab remodeling in 2003
Building:	Liberal Arts/Science		15% Administration		
Area (s.f.):	180,757		30% Lab		
Year Built:	1970		45% Classroom		
Floors:	4				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	19	\$8,656,491	0	\$0	0	\$0	Cast-in-place concrete showing signs of cracks admitting water into building on north and south elevations. Waterproofing was replaced in 2014.
Roof	5	\$2,278,024	10	\$227,802	10	\$227,802	Last re-roofing was done during the 2004 renovations for the original 1970 building. The 1999 addition has its original ballasted roof.
Glazing	4	\$1,822,419	15	\$273,362.89	5	\$91,121	Windows have been replaced on all three floors of the original section of building.
Cladding	8	\$3,644,839	2	\$72,897	7	\$255,139	Brick, precast concrete. Precast showing rust damage in 1999 addition. Funding source being investigated. Precast concrete sills were replaced in 2015-2017.
HVAC	14	\$6,378,467	15	\$956,770	20	\$1,275,693	Air handling systems in the original 1970 building are 13 year old and in good working order. Systems in the 1999 addition have no reported problems.
Plumbing	10	\$4,556,048	15	\$683,407	30	\$1,366,814	Laboratory plumbing, restroom plumbing, and general plumbing throughout the original 1970 building have been replaced in the last 13 years and have no reported problems.
Electrical Systems	6	\$2,733,629	1	\$0	5	\$136,681	Original transformer and switchgear were replaced in 2015.
Electrical Distribution	4	\$1,822,419	2	\$36,448	5	\$91,121	The existing FPE panels and feeders were replaced in 2015 with Square D.
Lighting	4	\$1,822,419	5	\$91,121	5	\$91,121	No reported problems.
Voice/Data	4	\$1,822,419	0	\$0	0	\$0	No reported problems.
Ceilings	4	\$1,822,419	2	\$36,448	5	\$91,121	Some tiles damaged or stained due to water.
Walls	4	\$1,822,419	5	\$91,120.96	10	\$182,242	Mold and asbestos has been abated on the first floor in 2014.
Doors	2	\$911,210	10	\$91,121	10	\$91,121	Door hardware needs to be upgraded. Some wood doors must be replaced.
Floors	5	\$2,278,024	5	\$113,901	15	\$341,704	Carpet has been replaced in 50% of classrooms in 2014. Epoxy penthouse floors.
Bldg., Fire, ADA, Elevator	4	\$1,822,419	0	\$0	0	\$0	Fully sprinkled building; original fire alarm system with horns and pull, and smoke detectors in ceiling. Toilet rooms updated in 1999 to comply with ADA. Elevator replaced in 2000.
Immed. Site, Ext. Ltg., etc.	3	\$1,366,814	10	\$136,681	25	\$341,704	Pavement is heaving and cracks exposed on north side of building.
CRV Totals:	100	\$45,560,481		\$2,811,082		\$4,583,384	

First Year Data					Five Year Data				
\$45,560,481	\$2,811,082	\$533,058	6.2%	Fair	\$7,394,466	\$5,116,442	16.2%	\$911,210	\$2,390,102.85
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Energy Center

Campus:	Main	Use Types:	Notes:
Bldg. No.:	EC (017)	95% Power House	
Building:	Energy Center	5% Offices	
Area (s.f.):	15,724		
Year Built:	1999		
Floors:	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	10	\$738,000	0	\$0	5	\$36,900	minor cracks in foundation walls
Roof	0	\$0	0	\$0	0	\$0	Basement space, no roof.
HVAC	60	\$4,428,000	15	\$664,200	30	\$1,328,400	Heating pumps are being replaced with completion by end of 2018. Small boiler needs to be replaced. Boiler controller package needs to be replaced.
Plumbing	10	\$820,000	5	\$41,000	10	\$82,000	No reported problems.
Primary/Secondary	12	\$885,600	5	\$44,280	15	\$132,840	Main switchgear to entire campus, no reported problems.
Distribution	1	\$73,800	5	\$3,690	15	\$11,070	No reported problems.
Lighting	1	\$73,800	0	\$0	5	\$3,690	Lighting was upgraded to LED in 2015.
Voice/Data	1	\$73,800	0	\$0	1	\$738	No reported problems.
Ceilings	1	\$73,800	1	\$738	5	\$3,690	Some ceiling tile damage reported.
Walls	1	\$73,800	2	\$1,476	5	\$3,690	Some wall damage.
Doors	1	\$73,800	20	\$14,760	5	\$3,690	Some damage to doors and hardware needs to be replaced. Door hardware needs to be upgraded.
Floors	1	\$73,800	10	\$7,380	25	\$18,450	Epoxy floor finish is 14 years old and needs to be replaced.
Bldg., Fire, ADA, Elevator	1	\$73,800	5	\$3,690	10	\$7,380	No reported problems.
Immed. Site, Ext. Ltg., etc.	0	\$0	0	\$0	0	\$0	Underground - n/a.
CRV Totals:	100	\$7,462,000		\$781,214		\$1,632,538	

First Year Data					Five Year Data				
\$7,462,000	\$781,214	\$408,114	10.5%	Poor	\$2,413,752	\$2,040,652	32.3%	\$149,240	\$631,990
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Family Education Building

Campus:	Main	Use Types:	Notes:
Bldg. No.:	FE (006)	100% Day Care	
Building:	Family Education		
Area (s.f.):	8,923		
Year Built:	1980		
Floors:	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	18	\$329,259	5	\$16,463	10	\$32,926	Potential settlement causing cracking in gypsum board walls sporadically throughout building - mostly at clearstory windows.
Roof	6	\$109,753	15	\$16,463	25	\$27,438	Roof replaced in 2018. 80% roof is shingled; 20% is fully adhered single ply EDPM.
Glazing	5	\$91,461	50	\$45,730	50	\$45,730	Flashing at clearstory windows leaks depending on direction of wind driven rain. Storefront aluminum entrance needs to be modified.
Cladding	10	\$182,922	50	\$91,461	50	\$91,461	Metal panels and brick. Metal panel finish peeling, needs to be replaced. Steel plate lintel rusting at entrance opening. Brick spalling at site walls.
HVAC	18	\$329,259	10	\$32,926	55	\$181,092	HVAC system was upgraded in 2004 and again in 2013. No problems reported.
Plumbing	7	\$128,045	25	\$32,011	30	\$38,414	Hard water has damaged water heater, faucets and flush valves; water softener needed.
Primary/Secondary	5	\$91,461	0	\$0	0	\$0	Primary: none in building. Secondary: no reported problems.
Distribution	3	\$54,876	25	\$13,719	30	\$16,463	Distribution system needs to be upgraded
Lighting	4	\$73,169	25	\$18,292	25	\$18,292	Premature burnout of lamps, possibly caused by electromagnetic ballasts. Averaging replacement of 15 ballasts and 100 lamps per year.
Voice/Data	3	\$54,876	0	\$0	10	\$5,488	No reported problems.
Ceilings	4	\$73,169	50	\$36,584	50	\$36,584	Many gypsum board ceilings limit access to equipment above. Some cracking in gypsum board ceilings near clearstory windows.
Walls	4	\$73,169	10	\$7,317	20	\$14,634	Gypsum board on wood stud framing. Some cracking in gypsum board at windows.
Doors	3	\$54,876	25	\$13,719	50	\$27,438	Exterior classroom doors replaced with fiberglass units. Have not been able to make main entrance door ADA automatic assist as no headroom at top of door for hardware. Interior doors are knob type. Door hardware needs to be upgraded. Hardware needs continued repair lately.
Floors	3	\$54,876	10	\$5,488	25	\$13,719	Carpet was replaced in 2014.
Bldg., Fire, ADA, Elevator	4	\$73,169	5	\$3,658	20	\$14,634	Minimal smoke detectors; building is not sprinkled. Fire alarm system was upgraded in 2014. There was an upgrade for exit and emergency lighting. Toilet rooms not ADA compliant.
Immed. Site, Ext. Ltg., etc.	3	\$54,876	25	\$13,719	50	\$27,438	Walk to entrance slippery in winter due to slope.
CRV Totals:	100	\$1,829,215		\$347,551		\$591,751	

First Year Data					Five Year Data				
\$1,829,215	\$347,551	\$256,090	19.0%	Poor	\$939,302	\$847,841	51.4%	\$36,584	\$224,445
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Great Lakes Regional Training Center

Campus:	Main	Use Types:	Notes:
Bldg. No.:	GL (024)	50% Classrooms	This building connects directly to the Occupational Education Building
Building:	Great Lakes RTC	30% Labs	
Area (s.f.):	21,946	10% Office	
Year Built:	2003	10% Computer labs	
Floors:	2		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	18	\$1,000,396	1	\$10,004	5	\$50,020	Exterior concrete stairs are deteriorating and need to be repaired. Stairs were repaired in 2014
Roof	6	\$333,465	15	\$50,020	50	\$166,733	Roof leaks reported
Glazing	5	\$277,888	0	\$0	3	\$8,337	
Cladding	10	\$555,776	2	\$11,116	2	\$11,116	
HVAC	18	\$1,000,396	8	\$80,031.67	30	\$300,119	HVAC system was retro-commissioned and temperature controls replaced in 2015. Roof top unit needs to be replaced
Plumbing	7	\$389,043	10	\$38,904	25	\$97,261	Storm and sanitary lift station pumps need to be replaced.
Primary/Secondary	5	\$277,888	2	\$5,558	10	\$27,789	
Distribution	3	\$166,733	2	\$3,335	5	\$8,337	
Lighting	4	\$222,310	2	\$4,446	5	\$11,116	No reported problems.
Voice/Data	3	\$166,733	0	\$0	2	\$3,335	
Ceilings	4	\$222,310	2	\$4,446	5	\$11,116	Some ceiling tiles are water damaged and need to be replaced.
Walls	4	\$222,310	2	\$4,446	5	\$11,116	No reported problems.
Doors	3	\$166,733	5	\$8,337	5	\$8,337	Door hardware needs to be upgraded.
Floors	3	\$166,733	25	\$41,683	50	\$83,366	Carpet in some spaces need to be replaced
Bldg., Fire, ADA, Elevator	4	\$222,310	3	\$6,669	5	\$11,116	No reported problems.
Immed. Site, Ext. Ltg., etc.	3	\$166,733	20	\$33,347	15	\$25,010	Concrete stair and ramp need repair and/or replacement
CRV Totals:	100	\$5,557,755		\$302,342		\$834,219	

First Year Data					Five Year Data				
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE
\$5,557,755	\$302,342	\$24,454	5.4%	Fair	\$1,136,561	\$858,673	20.5%	\$111,155	\$338,467

Deferred Maintenance Detail Report - Gunder Myran Building

Campus:	Main	Use Types:		Notes:	
Bldg. No.:	GM (022)		10% faculty offices		5th level is a mechanical penthouse
Building:	Gunder Myran Building		30% Library		
Area (s.f.):	139,390		40% classrooms		
Year Built:	2002		20% computer labs		
Floors:	5				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	18	\$6,507,666	2	\$130,153	5	\$325,383	No reported problems
Roof	5	\$1,807,685	7	\$126,538	10	\$180,768	Minor flashing and roof curb deterioration
Glazing	5	\$1,807,685	2	\$36,154	5	\$90,384	No reported problems
Cladding	9	\$3,253,833	2	\$65,077	3	\$97,615	Joint sealant replacement required
HVAC	15	\$5,423,055	10	\$542,305	20	\$1,084,611	Vibration and isolation springs for air-handling equipment need to be replaced. VFD's need to be replaced. Humidifiers need to be replaced. A/C unit replaced in Telecom closet to address temperature issues.
Plumbing	10	\$3,615,370	2	\$72,307	2	\$72,307	Minor leaks in garden level copper lines.
Primary/Secondary	6	\$2,169,222	2	\$43,384	2	\$43,384	No reported problems
Electrical Distribution	4	\$1,446,148	10	\$144,615	5	\$72,307	Transformers in penthouse scheduled to be replaced in Fall of 2018
Lighting	4	\$1,446,148	2	\$28,923	3	\$43,384	Emergency lighting replacement required
Voice/Data	4	\$1,446,148	0	\$0	1	\$14,461	No reported problems
Ceilings	4	\$1,446,148	2	\$28,923	3	\$43,384	Stained ceiling tiles throughout
Walls	4	\$1,446,148	1	\$14,461	2	\$28,923	Damaged column corners; wall protection program in place;
Doors	3	\$1,084,611	5	\$54,231	4	\$43,384	Minimal door hardware replacement; some doors damaged. Door hardware needs to be upgraded.
Floors	4	\$1,446,148	20	\$289,230	25	\$361,537	Carpeting needs to be replaced throughout. Carpet on the 2nd floor replaced in 2013. 3rd floor corridors converted to rubber flooring material.
Bldg., Fire, ADA, Elevator	2	\$723,074	1	\$7,231	2	\$14,461	Elevator load tests required; overhaul
Immed. Site, Ext. Ltg., etc.	3	\$1,084,611	3	\$32,538	3	\$32,538	Repairs to parking lot 6; fix underground lighting break.
CRV Totals:	100	\$36,153,698		\$1,616,070		\$2,548,836	

First Year Data					Five Year Data				
\$36,153,698	\$1,616,070	(\$191,615)	4.5%	Good	\$4,164,906	\$2,357,221	11.5%	\$723,074	\$1,556,055.14
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Hazardous Materials Shed

Campus:	Main	Use Types:		Notes:	
Bldg. No.:	HMS (014)		100% HazMat Storage		
Building:	Hazardous Materials Building				
Area (s.f.):	564				
Year Built:	1997				
Floors:	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	25	\$13,007	5	\$650	15	\$1,951	Metal roof showing signs of corrosion and should be painted.
Roof	20	\$10,406	25	\$2,601	50	\$5,203	Minor leaks reported.
Glazing	0	\$0	0	\$0	0	\$0	None
Cladding	20	\$10,406	15	\$1,561	25	\$2,601	Metal siding showing signs of rust.
HVAC	0	\$0	0	\$0	0	\$0	None
Plumbing	0	\$0	0	\$0	0	\$0	None
Primary/Secondary	3	\$1,561	5	\$78	10	\$156	Primary: none. Secondary: no reported problems.
Distribution	0	\$0	5	\$0	10	\$0	Minimal, no reported problems.
Lighting	4	\$2,081	5	\$104	25	\$520	Minimal, maybe too low light level.
Voice/Data	0	\$0	0	\$0	0	\$0	None
Ceilings	0	\$0	0	\$0	0	\$0	None
Walls	0	\$0	10	\$0	15	\$0	No interior partitions.
Doors	12	\$6,243	25	\$1,561	50	\$3,122	Door hardware needs to be upgraded including all door cyclinder cores.
Floors	12	\$6,243	5	\$312	15	\$937	Floor needs to be re-sealed.
Bldg., Fire, ADA, Elevator	0	\$0	0	\$0	0	\$0	None
Immed. Site, Ext. Ltg., etc.	4	\$2,081	25	\$520	50	\$1,041	Minimal, no reported problems.
CRV Totals:	100	\$52,029		\$7,388		\$15,531	

First Year Data					Five Year Data				
\$52,029	\$7,388	\$4,787	14.2%	Poor	\$22,919	\$0	0.0%	\$1,041	\$5,624
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Health and Fitness Center

Campus:	Main	Use Types:	Notes:
Bldg. No.:	HFC (025)	5% Administrative Offices	
Building:	Health & Fitness Center	2% conference	
Area (s.f.):	76,831	10% Mechanical	
Year Built:	2007		
Floors:			

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	17	\$2,979,675	3	\$89,390	5	\$148,984	Precast concrete bowing, cracking. Repairs have been addressed
Roof	7	\$1,226,925	0	\$0	15	\$184,039	No reported problems.
Glazing	5	\$876,375	2	\$17,528	5	\$43,819	No reported problems.
Cladding	7	\$1,226,925	5	\$61,346	15	\$184,039	Exterior brick showing signs of cracking and movement.
HVAC	16	\$2,804,400	7	\$196,308	15	\$420,660	Energy Recovery Unit #3 needs fan motor replacement.
Plumbing	8	\$1,402,200	15	\$210,330	30	\$420,660	Steam generators for steam room need to be replaced. Pool sand filters need to be replaced.
Primary/Secondary	5	\$876,375	0	\$0	0	\$0	No reported problems.
Distribution	4	\$701,100	0	\$0	15	\$105,165	No reported problems.
Lighting	4	\$701,100	5	\$35,055	0	\$0	Minor problems addressed with upgrades of LED lighting in majority of spaces and new lighting over front desk area.
Voice/Data	1	\$175,275	20	\$35,055	0	\$0	No reported problems.
Ceilings	2	\$350,550	2	\$7,011	5	\$17,528	Minor problems reported.
Walls	2	\$350,550	2	\$7,011	2	\$7,011	Minor problems reported.
Doors	3	\$525,825	2	\$10,517	10	\$52,583	Door hardware needs to be upgraded including all door cyclinder cores. Locker room locks upgraded to better design.
Floors	2	\$350,550	10	\$35,055	5	\$17,528	Carpet on 2nd floor replaced in 2017; fitness floor carpet replaced in 2016; locker room carpet replaced in 2017.
Bldg., Fire, ADA, Elevator	4	\$701,100	0	\$0	5	\$35,055	No reported problems.
Pool Equipment	10	\$1,752,750	15	\$262,913	30	\$525,825	The TMI water balance control unit needs to be serviced and/or replaced. Family locker room showers need to be replaced. Pool handrails need to be replaced. Trench drains need to be replaced. Heat exchangers in pool equipment room have been replaced.
Immed. Site, Ext. Ltg., etc.	3	\$525,825	5	\$26,291	5	\$26,291	Platform tennis deck surface needs to be refinished.
CRV Totals:	100	\$17,527,500		\$993,809		\$2,189,185	

First Year Data					Five Year Data				
\$17,527,500	\$993,809	\$117,434	5.7%	Fair	\$3,182,994	\$2,306,619	18.2%	\$350,550	\$987,148.80
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Henry S. Landau Skilled Trades Building

Campus:	Main	Use Types:	100% Vo/tech	Notes:	Major Renovations: Capital Outlay project completed: October 2011
Bldg. No.:	HL (028)				
Building:	Henry S. Landau Skilled Trades Building				
Area(s.f.):	7,362				
Year Built:	1978				
Floors:	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 cost	1-5 Yrs	2023 Cost	
Structure	19	\$360,288	0	\$0	0	\$0	No reported problems.
Roof	13	\$246,513	5	\$12,326	20	\$49,303	No reported problems.
Glazing	2	\$37,925	0	\$0	5	\$1,896	No reported problems.
Cladding	15	\$284,438	0	\$0	20	\$56,888	No reported problems.
HVAC	15	\$284,438	2	\$5,689	25	\$71,109	No reported problems.
Plumbing	4	\$75,850	1	\$759	0	\$0	No reported problems.
Primary/Secondary	2	\$37,925	0	\$0	0	\$0	No reported problems.
Distribution	4	\$75,850	0	\$0	0	\$0	No reported problems.
Lighting	4	\$75,850	2	\$1,517	5	\$3,793	No reported problems.
Voice/Data	2	\$37,925	0	\$0	0	\$0	No reported problems.
Ceilings	1	\$18,963	0	\$0	2	\$379	No reported problems.
Walls	4	\$75,850	0	\$0	2	\$1,517	No reported problems.
Doors	4	\$75,850	5	\$3,793	15	\$11,378	Door hardware needs to be upgraded.
Floors	4	\$75,850	2	\$1,517	25	\$18,963	No reported problems.
Bldg., Fire, ADA, Elevator	4	\$75,850	0	\$0	0	\$0	No reported problems.
Immed. Site, Ext. Ltg., etc.	3	\$56,888	5	\$2,844	25	\$14,222	No reported problems.
CRV Totals:	100	\$1,896,250		\$28,444		\$229,446	

First Year Data					Five Year Data				
\$1,896,250	\$28,444	(\$66,369)	1.5%	Good	\$257,890	\$163,078	13.6%	\$37,925	\$89,503
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Maintenance Building

Campus:	Main	Use Types:	100% Maintenance	Notes:	With mezzanine above east half of building and a 5-door garage addition at west end.
Bldg. No.:	MB (012)				
Building:	Maintenance Building				
Area (s.f.):	15,356				
Year Built:	1992				
Floors:	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	20	\$398,110	10	\$39,811	15	\$59,717	Rusting at bases of steel columns at salt storage area.
Roof	10	\$199,055	30	\$59,717	100	\$199,055	No reported problems.
Glazing	0	\$0	0	\$0	0	\$0	None
Cladding	10	\$199,055	25	\$49,764	50	\$99,528	Rusting around salt storage area.
HVAC	15	\$298,583	80	\$238,866	25	\$74,646	HVAC units need to be replaced
Plumbing	9	\$179,150	15	\$26,872	20	\$35,830	Sanitary sewer drains, trench drains and oil interceptor replaced in 2018.
Primary/Secondary	6	\$119,433	10	\$11,943	50	\$59,717	Primary: none. Secondary: no reported problems.
Distribution	5	\$99,528	50	\$49,764	50	\$49,764	Electrical service needs to be upgraded
Lighting	5	\$99,528	50	\$49,764	25	\$24,882	Lighting upgraded to LED in unconditioned storage in 2016 and mechanics area in 2012.
Voice/Data	2	\$39,811	0	\$0	0	\$0	No reported problems.
Ceilings	0	\$0	0	\$0	0	\$0	None
Walls	4	\$79,622	10	\$7,962	10	\$7,962	No reported problems.
Doors	4	\$79,622	20	\$15,924	25	\$19,906	Exterior doors don't align properly and bind. Door to salt storage area rusting, won't close completely. Doors and hardware need to be upgraded including all door cylinder cores.
Floors	4	\$79,622	50	\$39,811	50	\$39,811	No reported problems.
Bldg., Fire, ADA, Elevator	4	\$79,622	50	\$39,811	50	\$39,811	No reported problems.
Immed. Site, Ext. Ltg., etc.	2	\$39,811	50	\$19,906	50	\$19,906	No reported problems.
CRV Totals:	100	\$1,990,550		\$649,915		\$730,532	

First Year Data					Five Year Data				
\$1,990,550	\$649,915	\$550,387	32.7%	Poor	\$1,380,446	\$1,280,919	69.4%	\$39,811	\$315,900
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Morris Lawrence Building

Campus:	Main	Use Types:	Notes:
Bldg. No.:	ML (011)	10% Administration	Original building, with 2 additions. A 1,365 s.f. storage addition was completed in 2013.
Building:	Morris Lawrence	40% Auditorium	
Area (s.f.):	72,789	50% Classroom	
Year Built:	1990		
Floors:	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	18	\$3,690,747	15	\$553,612	20	\$738,149	Settlement caused sanitary line under building to sag. Condition has been corrected. Cracks in concrete and block walls possibly caused by settlement. Exposed structural steel under skylight at each entrance is rusting, needs to be repainted. Exterior columns at each entrance, some cracking, efflorescence on brick surfaces. Rust from rebar showing through exposed beams at each entrance. Slabs in mechanical room don't slope to drain.
Roof	7	\$1,435,291	30	\$430,587	50	\$717,645	Original roof was replaced in 2005. Firing range roof needs to be replaced. Flashing needs to be replaced.
Glazing	5	\$1,025,208	25	\$256,302	25	\$256,302	Glazed curtain wall at main lobby has leaked in the past and been repaired. Future leaks are anticipated. Glazing along 104 & 106 office suites showing signs of seal deterioration. Replacement should be scheduled and budgeted within 5 years.
Cladding	7	\$1,435,291	5	\$71,765	25	\$358,823	Precast/brick. Water is getting into cavity between brick and block, possibly through wind driven rain through roof flashing, or other openings, and not weeping back out causing efflorescence in some areas and potential mold.
HVAC	16	\$3,280,664	30	\$984,199	100	\$3,280,664	Five original air handling units. Keeping filters clean for unit at firing range is difficult. Controls upgraded to combination DDC & pneumatic as part of recent addition. Only one compressor, no back-up. Boiler piping not accessible for maintenance. Chillers were replaced in 2016
Plumbing	8	\$1,640,332	15	\$246,050	75	\$1,230,249	Plumbing lines are both galvanized and copper. Corrosion damage at joints from hard-untreated water, causing leaking. Water softener at end of life, beginning to need more than normal maintenance.
Primary/Secondary	5	\$1,025,208	20	\$205,042	50	\$512,604	Primary: power supply is adequate. One transformer replaced recently. Secondary: no identified issues.
Distribution	4	\$820,166	15	\$123,025	50	\$410,083	Not enough power to seminar rooms, conference and lobby space. (Need to confirm if upgrade for this area is presently funded.)
Lighting	4	\$820,166	50	\$410,083	50	\$410,083	Original. Conversion to LED in Towsley Auditorium. Canned track lighting fixtures upgraded to LED lamps.
Voice/Data	4	\$820,166	2	\$16,403	0	\$0	No identified issues.
Ceilings	4	\$820,166	50	\$410,083	50	\$410,083	Suspended lay-in and gypsum board ceiling show minor damage from previous leaking through roof flashing.
Walls	4	\$820,166	25	\$205,042	30	\$246,050	Vinyl wall covering recently replaced in some areas with Acrovyn wall covering.
Doors	3	\$615,125	25	\$153,781	50	\$307,562	Exterior door hardware wearing out needing more maintenance. Door hardware needs to be upgraded. Sliding doors failing on regular basis, due partially to orientation. Controls need to be repaired or replaced. Interior doors have lock hardware assembly failures. Exterior sliding doors should be replaced.

Deferred Maintenance Detail Report - Morris Lawrence Building

Campus:	Main	Use Types:	Notes:
Bldg. No.:	ML1 (011)	10% Administration	Original building, with 2 additions. A 1,365 s.f. storage addition was completed in 2013.
Building:	Morris Lawrence	40% Auditorium	
Area (s.f.):	72,789	50% Classroom	
Year Built:	1990		
Floors:	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	0-1 Yr Cost	1-5 Yrs	1-5 Yrs Cost	
Floors	4	\$820,166	50	\$410,083	50	\$410,083	Most existing carpet needs to be replaced. Severe chipping in quarry tile near entries needs to be replaced.
Bldg., Fire, ADA, Elevator	4	\$820,166	10	\$82,017	25	\$205,042	Door hardware has knobs instead of lever handles. Building fully sprinkled. Fire alarm system is combination of new and existing.
Immed. Site, Ext. Ltg., etc.	3	\$615,125	25	\$153,781	50	\$307,562	Exterior pavement at east entrance heaved up; holding water at entrance doors; potential tripping hazard.
CRV Totals:	100	\$20,504,151		\$4,711,854		\$9,800,984	

First Year Data					Five Year Data				
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE
\$20,504,151	\$4,711,854	\$3,686,646	23.0%	Poor	\$14,512,838	\$13,487,631	70.8%	\$410,083	\$3,312,651

Deferred Maintenance Detail Report - Motorcycle Storage

Campus:	Main	Use Types:	Notes:
Bldg. No.:	MS (026)	100% Storage	
Building:	Motorcycle Storage		
Area (s.f.):	871		
Year Built:	2008		
Floors:	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	27	\$20,489	2	\$410	15	\$3,073	No reported problems.
Roof	27	\$20,489	5	\$1,024	25	\$5,122	Asphalt shingles, no reported problems.
Glazing	0	\$0	0	\$0	0	\$0	None
Cladding	27	\$20,489	5	\$1,024	25	\$5,122	
HVAC	0	\$0	0	\$0	0	\$0	None
Plumbing	0	\$0	0	\$0	0	\$0	None
Primary/Secondary	3	\$2,277	0	\$0	0	\$0	Primary: none. Secondary: Minimal, no reported problems.
Distribution	3	\$2,277	0	\$0	2	\$46	
Lighting	3	\$2,277	100	\$2,277	0	\$0	Interior lighting is needed.
Voice/Data	0	\$0	0	\$0	0	\$0	None
Ceilings	0	\$0	0	\$0	0	\$0	None
Walls	0	\$0	2	\$0	5	\$0	No interior partitions.
Doors	10	\$7,589	2	\$152	5	\$379	Pedestrian and overhead door, no reported problems.
Floors	0	\$0	2	\$0	5	\$0	
Bldg., Fire, ADA, Elevator	0	\$0	0	\$0	0	\$0	None
Immed. Site, Ext. Ltg., etc.	0	\$0	10	\$0	25	\$0	None
CRV Totals:	100	\$75,886		\$4,887		\$13,743	

First Year Data					Five Year Data				
\$75,886	\$4,887	\$1,093	6.4%	Fair	\$18,630	\$14,836	24.6%	\$1,518	\$5,244
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Larry L. Whitworth Occupational Education Building

Campus:	Main	Use Types:		Notes:	
Bldg. No.:	OE (007)		10% Administration		With partial mezzanine, with Auto Service addition.
Building:	Occupational Education		40% Vo/tech		Major Renovations completed October 2011.
Area (s.f.):	136,433		50% Classroom		
Year Built:	1980				
Floors:	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	20	\$5,468,303	0	\$0	0	\$0	Some cracking of steps due to settlement, repairs are funded.
Roof	5	\$1,367,076	10	\$136,708	20	\$273,415	No reported problems.
Glazing	3	\$820,245	30	\$246,074	50	\$410,123	Some minimal moisture/air penetration through original glazing mostly at southwest corner of building. The windows need to be replaced.
Cladding	7	\$1,913,906	2	\$38,278	10	\$191,391	Brick and precast. Brick cladding was spalling at face. Recent repairs include brick replacement and tuck pointing.
HVAC	16	\$4,374,643	8	\$349,971	60	\$2,624,786	New Energy Recovery Units installed in penthouse of original (1981) building. However, Auto Center addition of 1990 HVAC units are original and need to be replaced. The HVAC units in the demo labs need to be replaced.
Plumbing	9	\$2,460,736	7	\$172,252	15	\$369,110	Solar panels and related hot water storage tank needs to be repaired.
Primary/Secondary	6	\$1,640,491	2	\$32,810	0	\$0	No reported problems.
Distribution	4	\$1,093,661	0	\$0	0	\$0	No reported problems.
Lighting	4	\$1,093,661	0	\$0	5	\$54,683	No reported problems.
Voice/Data	3	\$820,245	0	\$0	0	\$0	No reported problems.
Ceilings	4	\$1,093,661	0	\$0	0	\$0	No reported problems.
Walls	5	\$1,367,076	0	\$0	0	\$0	No reported problems.
Doors	3	\$820,245	7	\$57,417	10	\$82,025	Exterior doors: some hardware deterioration. Door hardware needs to be upgraded. Interior doors: all wood doors have been replaced with hollow metal doors with faux wood finish. Overhead doors in Auto Center need to be replaced.
Floors	4	\$1,093,661	22	\$240,605	5	\$54,683	Most floor are VCT and epoxy, offices are carpet. Auto Service flooring requires epoxy coating
Bldg., Fire, ADA, Elevator	4	\$1,093,661	0	\$0	5	\$54,683	Toilets have been upgraded to meet intent of ADA. Door hardware is not ADA compliant. Building is 100% sprinkled. Fire alarm system is up to date with strobes, pulls and duct detectors.
Immed. Site, Ext. Ltg., etc.	3	\$820,245	10	\$82,025	5	\$41,012	Cracking in pavement outside main entrance. North brick retaining walls - brick faces spalling.
CRV Totals:	100	\$27,341,516		\$1,356,139		\$4,155,910	

First Year Data					Five Year Data				
\$27,341,516	\$1,356,139	(\$10,937)	5.0%	Fair	\$5,512,050	\$4,144,974	20.2%	\$546,830	\$1,649,240
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Parking Structure

Campus:	Main	Use Types:		Notes:	
Bldg. No.:	PS (029)		3% Administration		
Building:	Parking Structure		97% Parking		Opened January 2012
Area (s.f.):	167,303				
Year Built:	2012				
Floors:	4				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	70	\$9,686,250	0.5	\$48,431	2	\$193,725	5 year maintenance overhaul performed by qualified contractor as prescribed by architect.
Roof	2	\$276,750	5	\$13,838	30	\$83,025	No reported problems.
Glazing	1	\$138,375	0	\$0	5	\$6,919	No reported problems.
Cladding	7	\$968,625	2	\$19,373	5	\$48,431	No reported problems.
HVAC	5	\$691,875	2	\$13,838	30	\$207,563	Minor air flow and temperature issues reported.
Plumbing	1	\$138,375	1	\$1,384	15	\$20,756	Some toilet drainage reported.
Primary/Secondary	3	\$415,125	1	\$4,151	0	\$0	No reported problems.
Distribution	1	\$138,375	0	\$0	0	\$0	No reported problems.
Lighting	2	\$276,750	5	\$13,838	15	\$41,513	Multiple LED fixtures have to be replaced due to fixture mounted occupancy sensor issues.
Voice/Data	1.25	\$172,969	0	\$0	0	\$0	No reported problems.
Ceilings	0.75	\$103,781	0	\$0	0	\$0	No reported problems.
Walls	1	\$138,375	0	\$0	0	\$0	No reported problems.
Doors	0.5	\$69,188	3	\$2,076	10	\$6,919	No reported problems.
Floors	1	\$138,375	5	\$6,919	5	\$6,919	Some deterioration of deck waterproofing over occupied areas needs to be replaced. Corrected during 5 year maintenance repairs.
Bldg., Fire, ADA, Elevator	0.5	\$69,188	0	\$0	5	\$3,459	No reported problems.
Immed. Site, Ext. Ltg., Security cameras, etc.	3	\$415,125	5	\$20,756	5	\$20,756	No reported problems.
CRV Totals:	100	\$13,837,500		\$144,602		\$639,984	

First Year Data					Five Year Data				
\$13,837,500	\$144,602	(\$547,273)	1.0%	Good	\$784,586	\$92,711	5.7%	\$276,750	\$433,667
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Plant Operations Building

Campus:	Main	Use Types:	Notes:
Bldg. No.:	PO (008)	100% Administration	
Building:	Plant Operations		
Area (s.f.):	7,368		
Year Built:	1983		
Floors:	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	20	\$256,250	5	\$12,813	10	\$25,625	Suspected settlement causing cracking to walls and floor at locker/lounge end of building.
Roof	5	\$64,063	10	\$6,406	15	\$9,609	Roofing, flashing, fascia, and soffit replaced in 2016.
Glazing	2	\$25,625	2	\$513	2	\$513	No reported problems.
Cladding	6	\$76,875	2	\$1,538	10	\$7,688	Exterior brick had issue with spauling of face. Recent repairs corrected issue with brick replacement and tuck pointing.
HVAC	24	\$307,500	40	\$123,000	70	\$215,250	Six of the seven air handling units were replaced in 2002. Restroom/lockerroom HVAC unit replaced, duct detectors replaced on remaining units. Telecommunication closet not air conditioned, Overheating of equipment potentially will reduce equipment life.
Plumbing	9	\$115,313	25	\$28,828	20	\$23,063	Water heater replaced with properly sized unit.
Primary/Secondary	6	\$76,875	5	\$3,844	20	\$15,375	Primary: original, still working ok, but undersize required for present operations. Secondary: no reported problems.
Distribution	3	\$38,438	25	\$9,609	15	\$5,766	Panels upgraded in 2014 with Square D.
Lighting	5	\$64,063	5	\$3,203	10	\$6,406	Original, no reported problems.
Voice/Data	3	\$38,438	0	\$0	0	\$0	No reported problems except for non air-conditioned telecommunication closet causing premature wear.
Ceilings	4	\$51,250	2	\$1,025	5	\$2,563	No reported problems. Ceiling access panels added for equipment accessibility
Walls	3	\$38,438	2	\$769	5	\$1,922	Gypsum board on metal stud. No reported problems.
Doors	2	\$25,625	5	\$1,281	10	\$2,563	Exterior galvanized steel doors are corroded from salt and weather. Door hardware to 8 doors require upgrading to lever style handle.
Floors	4	\$51,250	15	\$7,688	35	\$17,938	Carpet and VCT in most areas has no reported problems. VCT in restroom is worn and should be replaced. Carpet should be replaced in Small Business offices.
Bldg., Fire, ADA, Elevator	1	\$12,813	0	\$0	0	\$0	Hardware to 8 doors remains as type style with plans upgrade. No sprinkler system in building. Fire alarm system has been upgraded with strobes and horns.
Immed. Site, Ext. Ltg., etc.	3	\$38,438	50	\$19,219	50	\$19,219	Grading at north door slopes to building causing water in building at door entrance and adjacent conference room when heavy rain. Wall pack lighting replaced. The Building's sanitary sewer line and manhole need to be repaired.
CRV Totals:	100	\$1,281,250		\$219,734		\$353,497	

First Year Data					Five Year Data				
\$1,281,250	\$219,734	\$155,672	17.2%	Poor	\$573,231	\$509,169	44.7%	\$25,625	\$140,271
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Pump House

Campus:	Main	Use Types:	Notes:
Bldg. No.:	CU (015)	100% Utility	
Building:	Campus Utility		
Area (s.f.):	393		
Year Built:	2012		
Floors:	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	15	\$138,375	0	\$0	1	\$1,384	
Roof	2	\$19,475	0.5	\$97	2	\$390	
Glazing	0	\$0		\$0		\$0	No glazing.
Cladding	7	\$64,575	0	\$0	2	\$1,292	
HVAC	1	\$5,356	2	\$107	5	\$268	
Plumbing	52	\$483,800	3	\$14,514	8	\$38,704	
Primary/Secondary	9	\$82,000	0.5	\$410	3	\$2,460	
Distribution	9	\$79,950	3	\$2,399	5	\$3,998	Sensative VFD units susceptible to external electrical surge/sag.
Lighting	1	\$3,075	3	\$92	1	\$31	
Voice/Data	1	\$1,071	0	\$0	2	\$21	
Ceilings	0	\$0	0	\$0		\$0	
Walls	1	\$3,213	0	\$0	2	\$64	
Doors	1	\$3,213	0.5	\$16	2	\$64	
Floors	0	\$0	0	\$0		\$0	Unfinished concrete.
Bldg., Fire, ADA, Elevator	0	\$0	0.5	\$0		\$0	
Immed. Site, Ext. Ltg., etc.	1	\$5,356		\$0	2	\$107	
CRV Totals:	100	\$889,459		\$17,635		\$48,782	

First Year Data					Five Year Data				
\$889,459	\$17,635	(\$26,838)	2.0%	Good	\$66,417	\$21,944	7.5%	\$17,789	\$31,073
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Storage and Receiving Building

Campus:	Main	Use Types:	Notes:
Bldg. No.:	SRB (016)	25% Maintenance	With two partial mezzanines.
Building:	Storage & Receiving Bld 75% Storage		
Area (s.f.):	35,172		
Year Built:	1997; 12,000 s.f. addition completed 8/2015		
Floors:	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	20	\$589,708	5	\$29,485	5	\$29,485	Potential settlement at east entry causing cracking. Various area of block wall showing signs of cracking and breaking apart.
Roof	13	\$383,310	5	\$19,166	15	\$57,497	Gutters along north elevation replaced to match size and grade of addition gutters.
Glazing	1	\$29,485	0	\$0	2	\$590	Very minimal, no reported problems.
Cladding	15	\$442,281	15	\$66,342	25	\$110,570	Water runoff from roof saturating block walls at various locations, causing minor efflorescence.
HVAC	15	\$442,281	25	\$110,570	40	\$176,912	Two roof top units, controls issues at the addition west unit, one college mounted gas heater, stand-alone heating/cooling unit for office space.
Plumbing	4	\$117,942	10	\$11,794	15	\$17,691	No reported problems.
Primary/Secondary	3	\$88,456	5	\$4,423	25	\$22,114	DTE transformer disconnect switch should be installed to allow for routine electrical switchgear maintenance.
Distribution	4	\$117,942	5	\$5,897	15	\$17,691	No reported problems.
Lighting	4	\$117,942	25	\$29,485	25	\$29,485	No reported problems.
Voice/Data	2	\$58,971	0	\$0	0	\$0	Minimal, some data lines damaged, repairs are funded.
Ceilings	0	\$0	5	\$0	15	\$0	None
Walls	4	\$117,942	5	\$5,897	10	\$11,794	No reported problems.
Doors	4	\$117,942	7	\$8,256	5	\$5,897	Door hardware needs to be upgraded including all door cylinder cores.
Floors	4	\$117,942	25	\$29,485	25	\$29,485	No reported problems.
Bldg., Fire, ADA, Elevator	4	\$117,942	0	\$0	5	\$5,897	Building is 100% sprinkled. Smoke detectors only.
Immed. Site, Ext. Ltg., etc.	3	\$88,456	25	\$22,114	50	\$44,228	Minimal, no reported problems.
CRV Totals:	100	\$2,948,541		\$342,915		\$559,338	

First Year Data					Five Year Data				
\$2,948,541	\$342,915	\$195,488	11.6%	Poor	\$902,253	\$754,826	30.6%	\$58,971	\$239,421
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Deferred Maintenance Detail Report - Student Center Building

Campus:	Main	Use Types:	10% Kitchen/Food Service	Notes:	With partial basement and penthouse.
Bldg. No.:	SC (004)		20% Student Activities		Minor Renovations in 2003-2004
Building:	Student Center		25% Classroom		
Area (s.f.):	164,598		40% Administration		
Year Built:	1976		5% Facility Services		
Floors:	3				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	19	\$7,118,049	10	\$711,805	40	\$2,847,220	Settlement potentially causing cracking at west end of building. Partial basement and tunnel under building. Basement does not leak. Tunnel has some leaking. Possible leak in sanitary line needs to be investigated. Culinary arts reach in and walk in refrigeration in need of replacement. Approximately 50% of reach-in and undercounter refrigeration units have been replaced..
Roof	7	\$2,622,439	0	\$0	5	\$131,122	Existing single ply EPDM mechanically fastened roof was replaced in 2015 with high albedo EPDM fully adhered roofing membrane.
Glazing	4	\$1,498,537	5	\$74,927	10	\$149,854	Seals deteriorating. Air infiltration noticed at many windows.
Cladding	7	\$2,622,439	0	\$0	0	\$0	Cast in place concrete. Some rebar rust showing through wall.
HVAC	16	\$5,994,147	20	\$1,198,829	80	\$4,795,317	Eight existing Air Handling units need to be replaced in the penthouses.
Plumbing	6	\$2,247,805	20	\$449,561	30	\$674,342	Galvanized plumbing 4" and smaller has leaking at joints. Lines 2" and smaller are mostly copper, with no identified issues. Sanitary lines are deteriorating. Fixtures, drip. Fixtures scheduled and funded for replacement on first floor. Sanitary sewer and storm sewers, and drainage system in basement need to be repaired or replaced.
Primary/Secondary	6	\$2,247,805	10	\$224,781	25	\$561,951	Transformers and electrical switchgear was replaced in 2005.
Distribution	4	\$1,498,537	0	\$0	25	\$374,634	Walker duct makes retrofitting difficult. Power ok for present.
Lighting	5	\$1,873,171	25	\$468,293	30	\$561,951	Lighting in stairwells difficult to reach for replacement. Ballasts and lights are original. Lighting in central area of 2nd floor needs to be upgraded. Lighting is being converted to LED with lighting controls within project renovations.
Voice/Data	4	\$1,498,537	0	\$0	0	\$0	No reported problems.
Ceilings	4	\$1,498,537	5	\$74,927	10	\$149,854	Most of ceiling space is exposed construction.
Walls	4	\$1,498,537	25	\$374,634	30	\$449,561	Exposed concrete and drywall. Major areas throughout the building have been painted.
Doors	3	\$1,123,903	10	\$112,390	20	\$224,781	Exterior glass and aluminum doors, hardware failing. Interior doors hardware mortise locks and lever handles are wearing out. Door hardware needs to be upgraded.
Floors	4	\$1,498,537	50	\$749,268	50	\$749,268	Ceramic tile on main stairs has popped and been replaced in some areas. Future popping is expected. Tile popping in one men's toilet room. Has been repaired but more popping expected. Carpet should be replaced throughout.
Bldg., Fire, ADA, Elevator	4	\$1,498,537	25	\$374,634	25	\$374,634	Building is now fully sprinklered
Immed. Site, Ext. Ltg., etc.	3	\$1,123,903	5	\$56,195	15	\$168,585	Extensive cracking of paving and exterior stairs and caps on concrete site walls. Repairs are funded. Exterior lighting surrounding building has been upgraded to LED.
CRV Totals:	100	\$37,463,417		\$4,870,244		\$12,213,074	

First Year Data					Five Year Data				
\$37,463,417	\$4,870,244	\$2,997,073	13.0%	Poor	\$17,083,318	\$15,210,147	45.6%	\$749,268	\$4,165,932
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

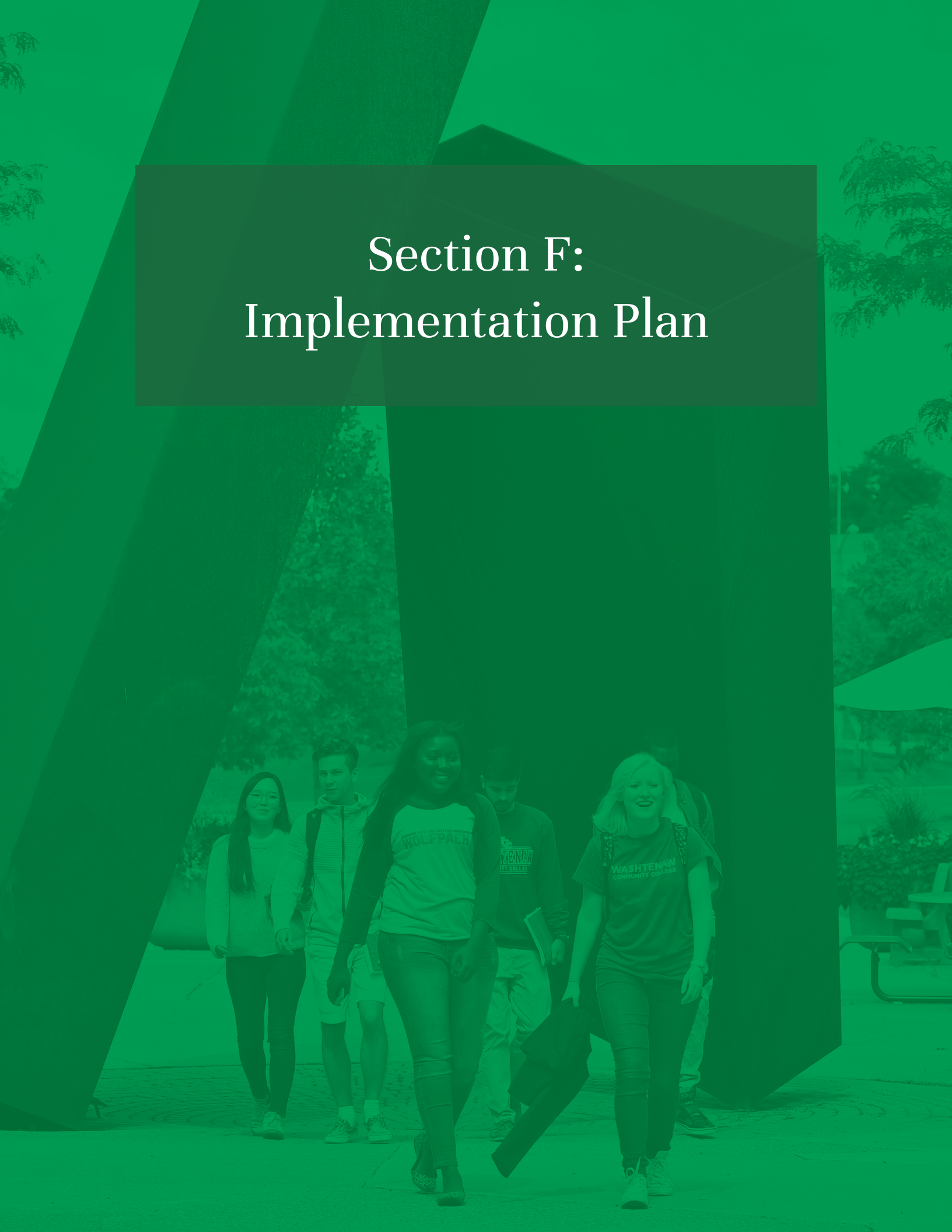
Deferred Maintenance Detail Report - Technical and Industrial Building

Campus:	Main	Use Types:	Notes:
Bldg. No.:	TI (001)	10% Lab	Minor renovations in 1995, 2001.
Building:	Technical & Industrial	15% Administration	Major renovations in 2008
Area (s.f.):	105,757	35% Vo/tech	
Year Built:	1970	40% Classroom	
Floors:	2		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2019 Cost	1-5 Yrs	2023 Cost	
Structure	18	\$3,972,331	5	\$198,617	5	\$198,617	No reported problems.
Roof	6	\$1,324,110	5	\$66,206	25	\$331,028	No reported problems.
Glazing	5	\$1,103,425	25	\$275,856	50	\$551,713	Glazing and precast sills are in need of replacement along east and south elevations for 1st and 2nd floor. Storefront entrances replaced at NE and SW entrances in 2017.
Cladding	7	\$1,544,795	2	\$30,896	5	\$77,240	Brick/precast/cast-in-place concrete/block. No reported problems.
HVAC	15	\$3,310,276	2	\$66,206	10	\$331,028	Exhaust system required for ceramics lab
Plumbing	8	\$1,765,481	2	\$35,310	5	\$88,274	No reported problems.
Primary/Secondary	5	\$1,103,425	0	\$0	5	\$55,171	No reported problems.
Distribution	4	\$882,740	0	\$0	5	\$44,137	No reported problems.
Lighting	4	\$882,740	5	\$44,137	15	\$132,411	Lay in ceiling fixtures were upgraded in 2016 to LED with light harvesting features.
Voice/Data	4	\$882,740	0	\$0	5	\$44,137	
Ceilings	4	\$882,740	2	\$17,655	15	\$132,411	Ceiling staining occurring from HVAC leakage issues.
Walls	5	\$1,103,425	2	\$22,069	5	\$55,171	
Doors	3	\$662,055	15	\$99,308	20	\$132,411	Interior doors: doors ok, hardware is wearing out. Mortise locks and lever handles are failing. Door hardware needs to be upgraded.
Floors	4	\$882,740	10	\$88,274	25	\$220,685	
Bldg., Fire, ADA, Elevator	4	\$882,740	10	\$88,274	5	\$44,137	Building is fully sprinkled.
Immed. Site, Ext. Ltg., etc.	4	\$882,740	5	\$44,137	10	\$88,274	Some paving heaving on south side of building. Exterior lighting controls upgraded for parking lot and outside lighting.
CRV Totals:	100	\$22,068,506		\$1,076,943		\$2,526,844	

First Year Data					Five Year Data				
\$22,068,506	\$1,076,943	(\$26,482)	4.9%	Good	\$3,603,787	\$2,500,362	16.3%	\$441,370	\$1,162,128
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

Section F: Implementation Plan



Implementation Plan

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

- a. **Prioritize 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.)**

Priority 1

Center for Student and Employer Success Project

Washtenaw Community College firmly believes in maximizing its existing facilities. WCC is therefore requesting funding for the renovation and addition for 97,000 sq. ft. of space in the Student Center Building around the concept of the Washtenaw Community College Center for Success.

The purpose of this project is to create a powerful new Workforce Development ecosystem focused on ensuring that residents in our region receive the postsecondary education and training that is required to attain a career that will support a family and employers have access to workforce talent they need for economic growth. We will accomplish this by creating a Washtenaw Community College Center for Success that will centralize all academic support, workforce development, and wrap-around services provided to students. Centralizing the student experience and services is the foundation for institution-wide transformative change to increase student persistence, retention, and degree or certificate completion to meet the ever-increasing demand of business and industry for a qualified workforce.

Related project work will re-align executive and associated staff offices to accommodate the space needs of the Center. A new entrance will be added to the north face of the building to improve movement into and through the facility with an elevator serving all three floors. Additionally, the project will renovate the outdated and inefficient student union space to assist with student retention by improving the attractiveness of the student union, keeping students on campus and engaged in the educational setting.

The project includes the renovation and addition for 97,000 sq. ft. of existing re-purposed space for a **total project cost of \$19,600,000.**

The renovations to the Washtenaw Community College Center for Success will also enhance the ability of the Economic and Community Development Division to connect students with employers by bringing both into the same physical space. This will allow ECD staff to better:

- Play a catalytic role in economic development, by participating and supporting local, regional and state economic development initiatives and by staying abreast of occupational trends that lead to training and organizational development opportunities;
- Serve the educational needs of employers, by identifying customer needs, creating and delivering customer-driven solutions and providing accessibility to training, services and information;
- Create partnerships that support local and regional economic and community development; and
 - Establish initiatives to ensure student success through programming, assessment, articulation and support services.

Moving the Economic and Community Development Division to the Washtenaw Community College Center for Success will have the added benefit of opening space in the Morris Lawrence building where most of our community events are held – allowing the College to host more events and serve a larger piece of the community.

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.

Current list includes the following projects. For additional details, please see the deferred maintenance report for the entire College in Section E:

PROJECT DESCRIPTION		BUDGET
BEB	Replace ceramic tile in (4) restrooms	\$ 80,000
BEB	Stair tread Replacement	\$ 30,000
BEB	Replace roof	\$ 450,000
BEB	North and South Storefront Replacement	\$ 120,000
BEB	Replace transformers	\$ 96,000
BEB	Lighting Control & LED Lamp Upgrades	\$ 160,000
BEB	Replace carpet throughout building	\$ 35,000
BEB	Replace smoke control system	\$ 125,000
Campus	Install safety anchors for roof maintenance	\$ 120,000
Campus	Resurface Parking Lot 6	\$ 600,000
Campus	Repair concrete sidewalks	\$ 400,000
Campus	Install electrical covers for tunnel cable trays	\$ 22,000
Campus	Repair water leaks in tunnel system	\$ 65,000
Campus	Replace building entry heating units	\$ 120,000
Campus	Upgrade tunnel lighting with motion detection	\$ 35,000
Campus	Seal and paint all mechanical and electrical area floors	\$ 60,000
Campus	Upgrade the Honeywell EBI Platform and zone managers	\$ 28,000
Campus	Replace master clock system with wireless	\$ 150,000

Campus	Flooring Replacement	\$	750,000
LA	Repair parapet roof	\$	60,000
LA	Replace Chemistry hoods	\$	150,000
LA	Replace corridor tile flooring	\$	250,000
LA	Upgrade greenhouse unit heater	\$	16,000
LA	Replace greenhouse water and drain lines	\$	90,000
LA	Replace roof on addition	\$	700,000
LA	Replace water softener	\$	45,000
LA	Upgrade elevator interior	\$	42,000
LA	Waterproof metal on greenhouse	\$	20,000
LA	Remove iron deposits seepage in concrete exterior	\$	25,000
LA	Install tunnel floor drain at pow point	\$	22,000
LA	Replace wooden doors	\$	30,000
LA	Replace vestibule entrance mat	\$	60,000
EC	Replace boiler control and boiler valve	\$	75,000
EC	Refurbish entire plant epoxy floor	\$	25,000
EC	Replace campus cooling tower	\$	900,000
EC	Replace Water Softener	\$	20,000
EC	Replace small summer boiler	\$	175,000
FEB	Repair exterior brick facing on west side	\$	60,000
FEB	Replace hot water tanks	\$	16,000
FEB	Install DDC panels for remote access	\$	33,000
FEB	Maintain tuck pointing	\$	12,000
FEB	Replace wood doors and hardware	\$	45,000
FEB	Replace lighting	\$	75,000
GL	Install above ground sewage pumps	\$	40,000
GM	Replace secondary, isolation and check valves	\$	55,000
GM	Add DP sensor in penthouse for the chilled water loop	\$	16,000
GM	Install bonding and grounding rods in penthouse	\$	35,000
GM	Replace humidification system	\$	150,000
GM	Replace outside and mixed air dampers AHU 1, 2, & 3	\$	30,000
GM	Replace vestibule entrance mat	\$	15,000
GM	Replace stair tread in stairwell C	\$	83,000
HFC	Install backup chlorine pumps for spas	\$	12,000
HFC	Replace lap pool and therapy pool floor and walls	\$	200,000
HFC	Replace copper piping for pool heat exchangers	\$	50,000
HFC	Upgrade sewage lift station grinder pumps	\$	50,000
HFC	Replace dual strainer	\$	15,000
HFC	Renovate locker room	\$	100,000
HFC	Paint exterior concrete surfaces	\$	75,000
HFC	Replace chlorine generator	\$	40,000

HFC	Repair damage precast panels	\$	85,000
HFC	Install main disconnect for primary service feed	\$	20,000
HFC	Replace lap pool surge tank	\$	25,000
HFC	Install pulley system for pool deck light fixtures	\$	35,000
HFC	Replace bronze pumps with cast iron pumps	\$	50,000
HFC	Replace chemical controllers	\$	45,000
HFC	Reconfigure boiler inlet and outlet piping	\$	50,000
HFC	Seal penthouse floor	\$	40,000
HFC	Replace boiler room AHU heating and chiller coils	\$	25,000
HFC	Replace Victaulic piping system	\$	50,000
HFC	Repair shower grout	\$	50,000
HFC	Replace w and edge protection	\$	15,000
HFC	Replace carpet in offices, conference room and kids area	\$	46,000
HFC	Replace laminate in locker rooms	\$	30,000
HFC	Replace benches in locker rooms	\$	60,000
HFC	Replace divider door in conference room	\$	15,000
HFC	Replace free weight 10mm flooring	\$	36,000
HFC	Replace heating covers in kids area	\$	40,000
HFC	Repair men's locker room steam wall	\$	25,000
HFC	Replace locker room lighting fixtures	\$	65,000
HM	Add power ventilation	\$	10,000
MLB	Repair gun range roof	\$	190,000
MLB	Repair water infiltration into atrium	\$	200,000
MLB	Replace carpet multiple areas	\$	320,000
MLB	Upgrade BAS to DDC	\$	135,000
MLB	Replace aluminum primary feeder wiring	\$	85,000
MLB	Replace the west sliding doors	\$	30,000
MLB	Repair the joint to the precast on the building	\$	24,000
MLB	Waterproof exterior masonry walls	\$	85,000
MLB	Replace lobby flooring	\$	200,000
MLB	Replace Victaulic piping	\$	260,000
MLB	Repair foundation leaks in gun range	\$	50,000
MLB	Install access doors to roof from penthouse	\$	17,000
MLB	Repair drainage flow for MLB retention pond	\$	120,000
MLB	Install additional data/voice jacks to mechanical areas	\$	12,000
MLB	Upgrade lights to LED for overhangs and lobby area	\$	75,000
MLB	Replace broken under-slab storm drain lines	\$	90,000
MLB	Replace seminar walls	\$	300,000
MLB	Upgrade VFD controls to BAS	\$	45,000
MLB	Upgrade building electrical system	\$	1,500,000
MLB	Replace windows on north side	\$	100,000
MLB	Replace kitchen sanitary line	\$	60,000

MLB	Replace wood stage flooring	\$	80,000
MLB	Install access doors to equipment in ceiling	\$	15,000
MLB	Upgrade plastic drain collars	\$	8,000
OE	Repair mechanical room floor	\$	30,000
OE	Replace B & G pumps	\$	125,000
OE	Maintain precast concrete on north upper level	\$	18,000
OE	Install isolation valves on geothermal system	\$	15,000
PO	Install 800A panel for electrical distribution	\$	15,000
PO	Renovate restroom flooring, fixtures and partitions	\$	40,000
PO	Maintain tuck pointing	\$	12,000
PO	Install BAS system for remote access	\$	18,000
PO	Renovate old security area, restrooms and corridor area	\$	25,000
PS	Maintain joints and concrete	\$	143,500
SC	Install building humidifier system	\$	350,000
SC	Repair bonding and grounding issues	\$	40,000
SC	Replace all AHUs in both penthouses	\$	1,000,000
SC	Seal penthouse floor	\$	30,000
SC	Replace cabinet unit heaters including BAS	\$	200,000
SC	Replace heating pumps and heat exchangers	\$	150,000
SC	Repair roof leaks and skylights water leaks	\$	40,000
SC	Replace stairwell lighting and staircase	\$	40,000
SC	Replace second floor HVAC diffusers	\$	300,000
SC	Install additional HVAC for Data Center	\$	35,000
SC	Replace tile flooring for main staircase	\$	60,000
SC	Replace B & G pumps	\$	125,000
SC	Install bird netting around exterior	\$	70,000
SC	Repair polished concrete on loading dock	\$	20,000
SC	Repair iron deposits seeping through exterior concrete	\$	25,000
SRB	Install outside main disconnect for primary service feed	\$	25,000
SRB	Install Paint booth	\$	10,000
SRB	Replace Dock 1 and 2 dock plates	\$	70,000
SRB	Install radiant heat panels	\$	12,000
TI	Replace elevator	\$	92,000
TI	Install UPS gear in 1st floor electrical room	\$	65,000
TI	Provide heating to 2nd floor north hallway	\$	60,000
TI	Replace all single glazed windows with double pane	\$	200,000
TI	Replace precast sills on exterior windows	\$	75,000
TI	Replace drywall exterior soffit	\$	60,000
TI	Replace exterior waterproofing and storm drains	\$	150,000
TI	Upgrade emergency lights	\$	12,000
TI	Repair iron deposits seeping through exterior concrete	\$	25,000
		TOTAL	\$ 15,958,500

Deferred maintenance, by definition, is maintenance work which has been backlogged and delayed due to lack of available resources. The impact of delaying these projects will have an immense impact on academic programs. Failures of facility utility systems or building envelope issues could render the space unfit for use for the educational or administrative functions for the short- or long-term, depending on the type of failure, ultimately leading to greater costs to remedy if not addressed.

- 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.**

The College recently was fortunate to have a \$5.7 million project for the Advanced Transportation Center authorized for construction in Public Act 207 of 2018. The project is currently at the schematic design phase and it's anticipated by the College that further design will commence later this year. Estimated completion of the project is in the year 2020. The Advanced Transportation Center project does not impact the College's deferred maintenance program since it will be new construction. Further, that project also does not impact the capital outlay project for the Center for Student Success that is the subject of this our current capital outlay request.

- 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.**

Most of the projects described in the implementation plan will have a seven-year payback or less. The mechanical and electrical retrofits will have an immediate operational impact and reduction of operational expenditures.

- e. Where applicable, consider alternatives to new infrastructure, such as distance learning.**

The College currently offers many distance and blended courses. However, at this time we are not proposing any new construction in this 5-year Capital Outlay Plan.

- f. Identify a maintenance schedule for major maintenance items in excess of \$1,000,000 for fiscal year 2020 through fiscal year 2024.**

The College will not have any major maintenance items in which a contract will be issued that is in excess of \$1,000,000.

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

The College maintains a current annual Deferred Maintenance budget of \$2.0 million for non-routine maintenance for the current fiscal year. The funding source is the College's general fund.

Attachment B: Fiscal Year 2020 Capital Outlay Project Request

(Submitted Electronically via
SIGMA Interface)

