

ALLEGANY COLLEGE  MARYLAND

FACILITIES MASTER PLAN

F O R T H E T E N - Y E A R P E R I O D

2014 - 2023

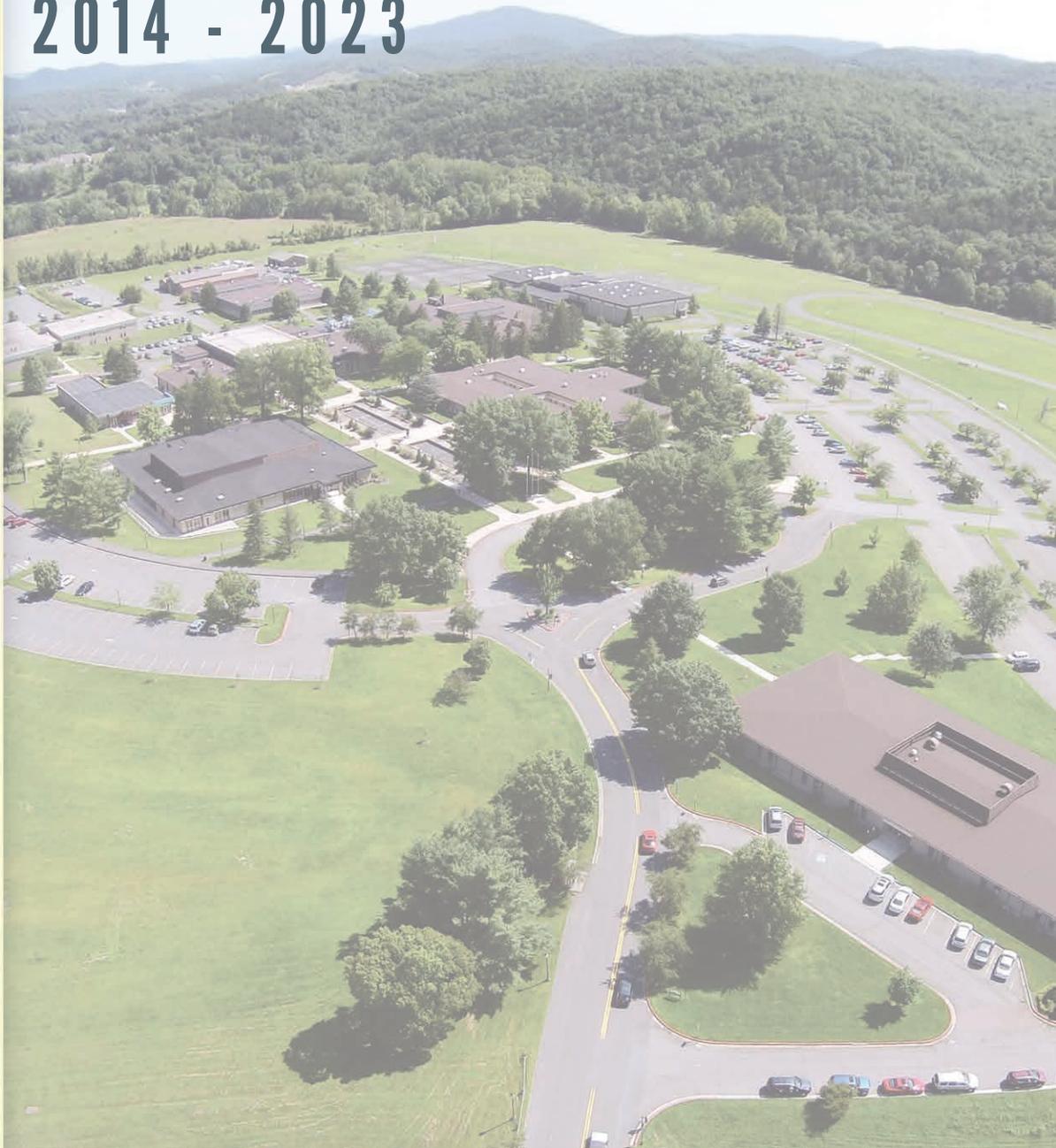
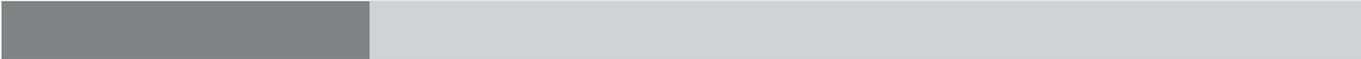


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ALLEGANY COLLEGE  MARYLAND

EXECUTIVE SUMMARY

I. EXECUTIVE SUMMARY

The 2014-2023 Facilities Master Plan (Plan) or (FMP) identifies current capital needs of Allegany College of Maryland's (ACM) physical plant and provides recommendations for the College's projected needs through the next decade. All recommendations reflect the College's consideration of building locations, landscaping, vehicle and pedestrian circulation, parking, utilities, student services and proposed academic development as each separate component contributes to a successful functional relationship among all in a strategic plan to enhance the college and the campus.

Our 2014-2023 Master Plan identifies opportunities to improve the success of Allegany College of Maryland's academic and workforce programs, fulfill our mission, and build a strong, identifiable presence for the campus in our regional community. It presents the framework for physical and academic growth we anticipate during the coming ten years; and will be periodically modified to reflect amended needs, regulations, innovations and funding opportunities or restrictions.

The 2014-2023 Facilities Master Plan was developed by members of the ACM Finance Department working in association with the Interim Senior Vice President of Instruction and Student Affairs to assure that recommendations in the new *2015 Educational Master Plan* were incorporated as a planning principle. Analysis of existing physical conditions and recommendations from the Director of our Physical Plant were also part of the planning processes as was the participation of many others who assisted with information on all aspects of the campus environment. The ACM Board of Trustees completed the development

process with the January 2016 adoption of the ten-year plan.

Our planning principles are simple and support a commitment that ACM's mission may only be fulfilled by establishing and maintaining a physical environment equal to the excellence of ACM's academic programs. To meet its mission as *a lifelong learning community dedicated to excellence in education and responsive to the changing needs of the communities we serve*, Allegany College of Maryland must remain the paramount provider of educational options available to our regional community and workforce. Planning principles used in the development of this Plan included:

- Technically advanced classrooms,
- A safe, healthy identifiable campus environment, and
- College-wide practices promoting sustainability.

Technically advanced classrooms and laboratories are essential to fulfill the College's mission and remain a regional leader. The 2014-2023 Facilities Master Plan addresses this need with the following two *primary capital projects*:

- Technologies Building
- Continuing Education Building.

A welcoming campus that strengthens the identity of ACM and reinforces our commitment to a physical campus environment equal to our high academic standards is critical to continued institutional and student success. We must fully execute the philosophy of programs such as *Tree Campus USA* and *Green Campus Space*, by

promoting a safe and healthy campus community lifestyle with seamless connectivity of buildings, parking and pedestrian walkways through open air and green spaces providing visitors and students a simple, convenient flow to campus buildings and facilities.

Finally, ACM must provide community leadership in the support of programs that promote environmental sustainability by:

- Amending policies and processes to promote the recycling of materials,
- Reducing the campus' carbon footprint,
- Incorporating Leadership in Energy and Environmental Design (LEED) recommendations,
- Requiring LEED silver ratings for major renovation projects and new construction, and
- Using sustainable landscaping.

Previous Projects

Allegheny College of Maryland established its main Cumberland campus in 1969 with construction of 7 buildings on the present Willowbrook Road site. Additional buildings were erected in the 1970's and 1990's, totaling 17 buildings now supporting our academic mission.

To date, the College has successfully completed renovation programs for all original buildings, modernizing to higher energy-efficiency standards and assuring ADA compliance. Renovation projects completed include the Humanities, College Center, Library, Science, Gymnasium, Automotive Technologies and Physical Plant buildings.

In addition to these major renewal programs, Allegheny College continued development of the

Willowbrook campus with construction of the community Serenity Garden and Labyrinth, addition of the Turning Point Center, and new construction expanding instructional space in the Allied Health Building. College development continued with the 2001 renovation of the Gateway Center.

Master Plan

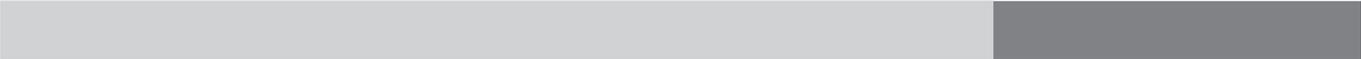
Development of the 2014-2023 Facilities Master Plan meets requirements set forth in Title 13B, Subtitle 7 of the Annotated Code of Maryland (COMAR). The 2014-2023 Facilities Master Plan establishes the general strategy for the direction of physical development, revitalization, and redevelopment of the campus. However, unpredicted changes in funding, priorities, policies and programs happen and the College will respond accordingly with appropriate Plan revision.

This Plan combines our vision as a regional institution and our mission as a center for life-long learning, into a purposeful process to ensure that Willowbrook campus facilities are prepared to support our stated goals.

We integrated academic and workforce needs into the analysis of physical condition and developed a 10-year Plan addressing anticipated student growth and program development. Accordingly, **our focus is now on the preservation and functionality of structures erected in the 1970's, with the goal of addressing needed capital replacements, energy efficiency, sustainability, and program accessibility.**

In particular, this Plan focuses on the sustainable renovation of two buildings:

- Technologies, and
- Continuing Education.



Also identified are other capital needs relating to our commitment to a safe, healthy campus and an environment that contributes to student success - both institutional strategic goals.

Finally, the 2014-23 Master Plan recognizes factors and initiatives with the potential to alter physical needs identified by this Plan, influence its fullest implementation, or affect our ability to expand the existing Willowbrook Campus.

Predominantly, these factors or initiatives include:

- Recommendations produced by our new *Educational Master Plan (EDMP)* and its Annual Initiatives.
- Other capital projects working in conjunction with the comprehensive renovation of the Technologies Building. *These subordinate projects may not be funded or not funded timely. Tentatively, these include construction of a new I/T department and College network facility or construction of a modest facility for the physical training component of the Western Maryland Correctional Officers Institute.*

ALLEGANY COLLEGE  MARYLAND

INSTITUTION'S ROLE AND MISSION

II. INSTITUTION'S ROLE AND MISSION

Vision Statement

In October 2015, the Board of Trustees of Allegany College of Maryland published a new vision statement –

We will be the college of choice that transforms lives, strengthens communities, and makes learners the center of everything we do.

The 2014-2023 Facilities Master Plan implements this vision statement with planning principles that support and promote a safe, healthy campus environment where growth of students and employees may be stimulated and fostered.

College Mission

Allegany College of Maryland is a respected regional education center providing a broad spectrum of academic degrees and partnerships for development of the regional workforce. As our mission statement emphasizes, we are *a lifelong learning community dedicated to excellence in education and responsive to the changing needs of the communities we serve.*

Our focus is the preparation of individuals in mind, body, and spirit for lives of fulfillment, leadership, and service in a diverse and global

ACM defines student success by two measures:

- 1) program and course objectives are met and
- 2) personal educational goals of students are met or exceeded.

society. We are committed to engaging students in rich and challenging learning opportunities within a small college atmosphere known for its personal touch.

To fulfill our vision and mission statements, Allegany College of Maryland offers career credit programs designed to provide skills for specific employment needs, transfer credit programs designed to provide the first two years of a bachelor's degree, and comprehensive continuing education offerings meeting diverse regional demands. Additionally, the College offers numerous student services supporting our mission of student success.

Strategic Plan

In response to the Maryland State Plan for Higher Education requirement for strategic planning, Allegany College of Maryland developed and adopted five institutional priorities and related strategic goals through which performance as a college community may be measured:

Institutional Priority One - Student Success and Access

Allegany College of Maryland develops and delivers quality academic offerings, services and activities that are accessible, affordable, and flexible to help students achieve their goals.

FY15-20 Strategic Goals for Priority One:

1. Foster a learner-centered culture throughout the College.
2. Optimize enrollment.
3. Identify and diminish barriers that impede student success.

4. Maximize financial opportunities and resources for students to attend ACM.
5. Increase employability of graduates within today's regional and global economy.
6. Enhance quality instruction, academic support, and student services for all delivery methods.

**Institutional Priority Two -
*Organizational Development and Support***

Allegany College of Maryland enhances the learning and working environment by valuing, supporting, and recognizing a diverse and highly qualified faculty and staff.

FY15-20 Strategic Goals for Priority Two:

1. Promote positive employee engagement, wellness, and work-life balance.
2. Invest in hiring and retaining a diverse and highly qualified faculty and staff.
3. Expand and promote professional development opportunities.
4. Support and promote participatory governance that includes open and timely decision-making, effective communication and accountability.
5. Increase the cultural competency within the College community.

**Institutional Priority Three -
*Community***

Allegany College of Maryland leads and collaborates with business, educational, non-profit, and governmental agencies to enhance student opportunities and contribute to workforce development for the region and the global economy.

FY15-20 Strategic Goals for Priority Three:

1. Expand educational, governmental and community partnerships that strengthen educational solutions for local economic and social issues.

2. Support service and civic engagement of students, faculty, and staff.
3. Collaborate with ACM affiliated foundations to enhance community relations and institutional advancement.

**Institutional Priority Four -
*Resource Management***

Allegany College of Maryland prudently applies resources to enhance teaching, learning, and working.

FY15-20 Strategic Goals for Priority Four:

1. Identify and acquire new resources for the College.
2. Proactively plan for the infrastructure needs of the College.
3. Utilize data to align resource allocation with institutional plans.
4. Identify and incorporate strategies that will improve institutional efficiencies.
5. Implement a systematic review process to ensure that the College maintains compliance with relevant regulations.

**Institutional Priority Five -
*Planning and Assessment***

Allegany College of Maryland integrates planning and assessment of programs, services, and resources to continuously improve student learning, student success and institutional effectiveness.

FY15-20 Strategic Goals for Priority Five:

1. Expand the strategic planning process to ensure systematic and sustainable planning, using student learning assessment, and institutional effectiveness data.
2. Develop and maintain the institutional effectiveness plan which includes an organized and sustainable assessment process that details the procedures, timelines, links to budgeting, and analysis

- and incorporates program and administrative unit reviews.
3. Complete the assessment cycle of student learning outcomes following the guidelines of the Academic Assessment Plan and ensure the information collected is analyzed and used for decision-making, resource allocation, and initiative development.

History of the College & Willowbrook Campus

Allegany College of Maryland, located in scenic western Maryland, established the site that is now Willowbrook, the main Cumberland campus, in 1969 with construction of 7 buildings for core academic programs in humanities, sciences and mathematics, as well as a library and physical education building, an automotive technologies center, a student/administrative center, and physical plant service structures. Situated on about 22 acres, the new campus was designed to serve a population of up to 1,000 students.

Development of the Willowbrook campus continued from the mid 1970's through the 1990's with construction of additional buildings forming the campus as it currently presents. Over the years, the campus was augmented with outdoor sports and recreational venues, walking paths, open-air green spaces, and parking. The minimalist building architecture and footprints, in conjunction with natural site beauty, melds into a scenic and welcoming campus.

Seventeen buildings now house ACM's academic programs and support services. This number includes the Gateway Center, situated in downtown Cumberland, where hospitality and culinary program students participate in hands-on instruction and operation of industry services. (Although located downtown, the College considers this single structure as part of the

campus on Willowbrook Road). Also included are the Technologies Building, Continuing Education Center, Advancement & Campus Bookstore addition, Welding and Automotive Lab, Allied Health Building, Transportation Building, and 3 separate storage facilities.

In 1961, Allegany College of Maryland, founded by joint resolution of the Allegany County Board of Education and the Allegany County Commissioners, began in a former school building on Frederick Street. First known as Allegany Community College, initial enrollment was 102 students.

Historically, ACM served, and still serves, regional student and workforce populations from 3 autonomous states. Advantageously situated within two miles of West Virginia's border and three miles of Pennsylvania's border, the Willowbrook campus attracts students from a bounty of cultures with diverse academic and workforce needs.

To picture our geographic impact, if a circle is drawn on a map with a 55-mile radius, and the center of the circle is Willowbrook, the encircled area would include the 3 western counties of Maryland, 9 West Virginia counties, and 10 counties in Pennsylvania. Although an unusually large service area for a community college, the quality of our programs and the reputation for personal service continue to attract regional students.

Our investment in the success and future of the regional community is well established. In the divestiture of realty needed to facilitate construction of the regional medical center adjacent to the campus main entrance, we affirmed *regional leadership and partnership roles*. We continue that partnership today through opportunities to participate in hands-on laboratory training and internships for allied health programs students.

Enrollment Information

TABLE ONE: College Enrollment - Actual, Past, and Current

	FALL 2004	FALL 2005	FALL 2006	FALL 2007	FALL 2008	FALL 2009	FALL 2010	FALL 2011	FALL 2012	FALL 2013	FALL 2014	2004 to 2014 % change
Total Headcount	3705	3666	3567	3788	3958	4086	4071	3812	3672	3188	3250	-12%
FTE	3705	3666	3567	3788	3958	4086	4071	3812	3672	3188	3250	-12%
Fiscal Year FTDE	1660	1628	1572	2094	2168	2313	2300	2173	2072	1967	1925	+16%
Non-Credit FTE (state eligible)	376	377	369	376	506	480	474	424	503	442	419	+11%
<ul style="list-style-type: none"> • The formula used for determining FTE is the total number of credit hours generated by all full-time students divided by 30. • The formula used for determining FTDE is the total number of credit hours generated by all full-time students between 8am and 5pm divided by 15. • Statistics for FTEs are annual, not exclusively fall semester. 												

Total enrollment at Allegany College of Maryland for fall 2014 was 3,250 students as documented above in Table One.

By fall 2023, enrollment is projected to increase 11% to 3,652 students based on MHEC

enrollment projections presented at right in Table Two.

Full-time day equivalent students (FTDE) enrollments are predicted in Table Two to increase 14% by 2023.

TABLE TWO: College Enrollment - MHEC Projections

	FALL 2014	FALL 2015	FALL 2016 Est.	FALL 2017 Est.	FALL 2018 Est.	FALL 2019 Est.	FALL 2020 Est.	FALL 2021 Est.	FALL 2022 Est.	FALL 2023 Est.	2014 to 2023 % change
Headcount	3277	3290	3327	3374	3404	3454	3489	3536	3607	3652	+11%
FTE	2213	2220	2274	2314	2333	236	2395	2430	2489	2515	+14%
Fiscal Year FTDE	1470									1671	+14%
Non-Credit FTE (state eligible)	492	495	498	501	503	505	509	512	514	517	+5%

➤ Table Two statistics were sourced from the Maryland Higher Education Commission, Enrollment Projections 2014-2024 Maryland Public Colleges and Universities, June 2014.

TABLE THREE: Student Demographics (Fall 2014)

ENROLLMENT STATUS			GENDER		
Full-time	1,690	52.0%	Female	2,210	68.0%
Part-time	1,560	48.0%	Male	1,040	32.0%
ADMISSION STATUS			ETHNIC ENROLLMENT		
First time*	800	24.6%	Caucasian	2,763	85.0%
Re-admitted	839	25.8%	African American	400	12.0%
Returning	1,611	49.5%	Other	87	3.0%
CURRICULA ***			AVERAGE CREDIT HOURS		
Career**	1,677	52.0%	Overall Average Credit Hours		9.65
Transfer	739	23.0%	Full-time		13.22
Other	1,060	26.0%	Part-time		5.86

* First-time ever attending Allegany College of Maryland.

** Career includes Associates career programs as well as "Pre" programs; Certificates are included in category "Other."

*** Sum of percentage in division "Curricula" is >100% due to rounding.

Facilities needs catalogued in this 2014-23 Master Plan respond to the projected 2023 impacts of the Table Two data and to the student population growth anticipated in our 2015-2018 *Educational Master Plan (EDMP)*. The analysis considered a projected:

- **11% Increase in Headcount,**
- **14% Increase in FTE,**
- **14% Increase in FTDE, and**
- **5% Increase in Non-Credit FTE.**

Further examination of our student population data provides an additional significant statistic, known to have repeated through our recent history: *our full-time student population is greater than the part-time student population.* Atypical for a community college, this attribute repeats year after year.

Full-time students currently comprise 52% of total credit enrollment. In developing this Plan, we examined use of college facilities and services generated by this higher volume of full-time versus part-time population, particularly during peak daytime hours. This increased full-time population creates congested parking and higher volumes of vehicular traffic. These issues measured previously, now have suggested solutions in this Plan.

As presented in Table Three, our fall 2014 student population produced additional statistics, which we examined for impact. These included:

- 1) Credit headcount enrollment was 3,250. During the past fourteen years (2000-2014), unduplicated **credit** headcount enrollment increased by 614 students or **23%**.
- 2) Credit students were mostly female (68%), with 52% taking classes on a full-time basis.

- 3) The average age for credit students was 24 years. For full-timers, many of whom matriculate directly from high school, the average age was 24. For part-timers typified by the "returning student," the average age was 25.
- 4) First-time students comprised 24.6% of the student body. Half of the students (50%) were returners from the previous semester and 25.2% were readmitted from an unidentified semester and academic year.
- 5) Sixty-three percent (**63%**) of the College's students were non-residents of Allegany County, MD.

This non-residency statistic was critical in the Plan decision-making process. From this statistic we inferred an immediate objective to address parking needs for the higher percentage of students commuting within our regional area as opposed to local students who may be using public transportation or sharing rides. This interpretation contributed to the analysis of Willowbrook parking facilities.

Faculty and Staff Information

TABLE FOUR: Employment Profile (Fall 2014)			
CLASSIFICATION	FULL-TIME	PART-TIME	TOTAL
Faculty	109	260	369
Administrators	12	0	12
Professional Support Staff	89	7	96
Support Staff	91	92	183
TOTALS	301	359	660

Staff

Employees of Allegany College contribute equally in our effort to achieve institutional strategic goals established for 2015-18, and are critical to accomplishing the vision and mission of the College.

In fall 2014, ACM engaged 291 persons as administrators and support persons, with a respective distribution between full-time and part-time of 66% and 34%.

By 2023, we anticipate a distribution closer to 55/45% as workforce needs balance with budgetary needs and advancing office and maintenance technologies.

Faculty

In fall 2014, Allegany College of Maryland employed 369 full and part-time faculty members. Data presented in Table Four includes part-time faculty teaching both credit and noncredit courses.

By 2023, we expect the demand for faculty to increase a minimum 5%, in tandem with anticipated increased demand in academic programs. We predict this to be the largest growth category.

Irrespective of forecasted student growth, the predicted 5% increase in faculty members should maintain the 14:1 student-to-faculty ratio exhibited for fall 2014. This ratio is lower than the normal class size of 16 for a typical liberal arts or general studies education course. Currently, only classroom seating capacity or number of available laboratory stations limits the total of students accepted into any ACM course.

Academic and Workforce Programs: Existing

Associate Degree Career Programs:

Applied Technical Studies
Automotive Technology**
Business Management
Multimedia Technology
Child Care Professional
Computer Science & Technology
Criminal Justice
Culinary Arts**
Dental Hygiene^ *
Forest Technology*
Hospitality Management*

Human Service Associate^ *
Medical Assistant^ *
Medical Laboratory Technology^ *
Nanotechnology
Nursing^ *
Occupational Therapy Assistant^ *
Office Technologies
Physical Therapist Assistant^ *
Radiologic Technology^ *
Respiratory Therapy^ *

Certificate Career Programs:

Administrative Office Support
Applications User Specialist
Automotive Technology**
Biotechnology
Business Accounting
Business Entrepreneurship
Business Marketing and Sales
Criminal Justice
Cybersecurity
Dietary Manager

General Studies
Graphic Design
Medical Coding and Billing^
Nursing Assistant/Geriatric Aide*
Pharmacy Technician^
Phlebotomy/EKG Technician*
Practical Nursing^*
Professional Golf Management
Technical Support
Tree Care Technician*

Letter of Recognition:

Accounting I
Addiction Treatment
Baking Essentials
Cooking Essentials
Criminal Justice/Corrections
Entrepreneurship Training
First-Line Supervision
Food Service Supervision
Integrative Health

Integrative Wellness
Leadership Development
Lodging Supervision
Marketing and Sales Training
Office Applications Specialist
Peace and Conflict Studies
Photography
Web Page Development

**denotes statewide program*

***denotes selective admission*

^denotes Health Manpower Shortage program

Summary of Space Needs

TABLE FIVE: Computation of Space Needs by Type (Fall 2014)

HEGI CODE	HEGIS CATEGORY	CURRENT			NEXT 10 YEARS		
		NEED	INVENTORY	SURPLUS/ DEFICIT	NEED	INVENTORY	SURPLUS/ DEFICIT
100	CLASSROOM	33,069	39,497	6,428	38,313	39,497	1,184
110-115	Classroom	33,069	39,497	6,428	38,313	39,497	1,184
200	LABORATORY	49,045	66,718	17,673	56,822	66,718	9,896
210-15	Class Laboratory	41,867	64,587	22,720	48,506	64,587	16,081
220-25	Open Laboratory	7,178	2,131	(5,047)	8,316	2,131	(6,185)
250-55	No Allowance						
300	OFFICE	56,841	50,399	(6,442)	65,557	50,399	(15,158)
310-15	Office/ Conf. Room	55,236	50,399	(4,837)	63,817	50,399	(13,418)
320-25	Testing/Tutoring	1,605		(1,605)	1,740	0	(1,740)
350-55	Included w/ 310						
400	STUDY	15,648	14,471	(1,177)	16,908	14,471	(2,437)
410-15	Study	10,681	5,151	(5,530)	12,375	5,151	(7,224)
420-30	Stack/Study	3,548	7,716	4,168	2,952	7,716	4,764
440-55	Processing/Service	1,419	1,604	185	1,581	1,604	23
500	SPECIAL USE	38,857	27,769	(11,088)	41,784	27,769	(14,015)
520-23	Athletic	36,090	24,509	(11,581)	38,800	24,509	(14,291)
530-35	Media Production	1,767	2,514	747	1,984	2,514	530
580-85	Greenhouse	1,000	746	(254)	1,000	746	(254)
600	GENERAL USE	35,160	31,153	(4,007)	38,101	31,153	(6,948)
610-15	Assembly	12,418	11,918	(500)	12,960	11,918	(1,042)
620-25	Exhibition	1,605	714	(891)	1,740	714	(1,026)
630-35	Food Facility	10,379	7,646	(2,733)	12,024	7,646	(4,378)
640-45	No Allowance						
650-55	Lounge	3,053	6,290	3,237	3,537	6,290	2,753
660-65	Merchandising	1,705	167	(1,538)	1,840	167	(1,673)
670-75	No Allowance						
680-85	Meeting Room	6,000	4,418	(1,582)	6,000	4,418	(1,582)
700	SUPPORT	16,115	20,426	4,311	17,335	20,426	3,091
710-15	Data Processing	2,500	828	(1,672)	2,500	828	(1,672)
720-25	Shop/ Storage	9,426	16,083	6,657	10,623	16,083	5,460
730-35	Included w/ 720						
740-45	Included w/ 720						
750-55	Central Service	4,000	3,515	(485)	4,000	3,515	(485)
760-65	Hazmat Storage	189	0	(189)	212	0	(212)
800	HEALTH CARE	542	665	123	596	665	69
900	No Allowance						
050-090	No Allowance						
TOTALS		245,277	251,098	5,821	275,416	251,098	(24,318)

TABLE FIVE - B
Computation of Space Needs by Utilization Hours Used per Week During Peak*

**Peak hours: 10:00am to 2:00pm*

(Fall 2014)

BUILDING & ROOM IDENTIFIER	HOURS per ROOM	HOURS per BUILDING	AVERAGE HOURS per ROOM
Allied Health - AH102 Respiratory Therapy Classroom	3		
Allied Health - AH108 Respiratory Therapy Laboratory	5		
Allied Health - AH134 Dental Hygiene Classroom	10		
Allied Health - AH138 Dental Hygiene Laboratory	10		
Allied Health - AH147 Dental Hygiene Clinic	12		
Allied Health - AH155 Therapeutic Massage Classroom	14		
Allied Health - AH200 Nursing Classroom	4		
Allied Health - AH201 Nursing Classroom	16		
Allied Health - AH202 Nursing Classroom	18		
Allied Health - AH208 Nursing Classroom	18		
Allied Health - AH225 Radiology Technology Laboratory	12		
Allied Health - AH230 Classroom/Laboratory	9		
Allied Health - AH239 PTA Classroom/Laboratory	6		
Allied Health - AH241 Classroom	12		
Allied Health - AH251 MLT Classroom	7		
Allied Health - AH258 Classroom	6		
Allied Health - AH259 Classroom	4		
Allied Health - AH260 Radiology Technology Classroom	16		
Allied Health - AH300 Classroom	4		
Allied Health - AH303 Classroom	6	192	9.75
Automotive Technology - A106 Laboratory	9		
Automotive Technology - A118 Classroom	10	19	9.5
College Center - C186 Music Room	6		
College Center - GR Classroom	4	10	5.0
Continuing Education - CE19 Classroom	7	7	7.0
Gateway Center - 211 Classroom & Culinary Cafe	13	13	13.0
Humanities - H10 Classroom	11		
Humanities - H18 Classroom	18		
Humanities - H19 Classroom	15		
Humanities - H2 Classroom	15		
Humanities - H24 Classroom	14		
Humanities - H27 Computer Laboratory	11		
Humanities - H31 Art Studio	8		
Humanities - H33 Art Classroom	10		

...continued on next page

BUILDING & ROOM IDENTIFIER	HOURS per ROOM	HOURS per BUILDING	AVERAGE HOURS per ROOM
Humanities - H37 Computer Laboratory	10		
Humanities - H4 Classroom	15		
Humanities - H40 Classroom	18		
Humanities - H44 Classroom	9		
Humanities - H45 Classroom	15		
Humanities - H9 Classroom	16	185	13.25
Physical Education - G132 Classroom	10		
Physical Education - G171 Classroom	7		
Physical Education - G176 Classroom	4		
Physical Education - G101 Classroom	2	23	5.75
Science - S10 Anatomy Laboratory	9		
Science - S11 Physiology Laboratory	6		
Science - S12 Physical Science Laboratory	6		
Science - S15 Classroom	5		
Science - S18 Chemistry Laboratory	3		
Science - S20 Microbiology Laboratory	9		
Science - S22 Biology/Anatomy/Physics Laboratory	2		
Science - S24 Biology Laboratory	6		
Science - S25 Organic Chemistry Laboratory	4		
Science - S26 Classroom	9		
Science - S27 Classroom	11		
Science - S28 Classroom	19		
Science - S29 Distributed Learning Classroom	9		
Science - S63 Computer Laboratory	11		
Science - S68 Lecture Hall	11	120	8.0
Technologies - T101 Computer Laboratory	4		
Technologies - T102 Computer Laboratory	4		
Technologies - T103 Computer Laboratory	4		
Technologies - T105 Computer Laboratory	10		
Technologies - T109 Classroom	13		
Technologies - T113 Classroom	7		
Technologies - T114 Medical Assistant Laboratory	6		
Technologies - T116 Distance Learning Laboratory	4		
Technologies - T118 Classroom	8		
Technologies - T119 Classroom	9		
Technologies - T15 Media Theatre Classroom	10		
Technologies - T160 Computer Laboratory	13		
Technologies - T161 Distance Learning Laboratory	9		
Technologies - T163 Computer Laboratory	4		
Technologies - T164 Computer Laboratory	2		
Technologies - T3 Computer Laboratory	6		
Technologies - T17 Computer Laboratory	13	126	7.50
TOTAL ALL BUILDINGS	695	695	

Development of the 2014-2023 Plan included a comprehensive evaluation of the College's existing space needs and needs anticipated in our *2015 Educational Master Plan*.

The evaluation of space needs utilized the current *State of Maryland Space Guidelines*, only. We did not apply any other studies or industry guidelines, but our assessment did consider input from faculty through recommendations made in the development of the new *Educational Master Plan*. This qualitative scrutiny is a necessary element in achieving our strategic goal of student success.

To analyze space needs and identify strain on existing facilities, we examined building utilization during peak hours of 10am-2pm. With respect to data presented in Table Five-B, classroom space scheduled for the entirety of the time monitored equaled twenty (20) hours of usage.

In reality, however, analysis of building utilization is not the simple calculation of persons occupying seats. Also factored into the analysis is our goal of student success and the knowledge that to achieve this success, we must offer diverse class time schedules.

Although this objective may not optimize classroom usage, it is a significant and necessary element. Further, we recognize that specific computer labs or specialized occupational training labs equipped especially to meet particular program needs cannot substitute as *open or available* space. Because of this reality, we consider *classrooms with 13 or more hours scheduled as fully utilized*.

Quantitative Conclusions

Table Five (A) presents data for the Plan's beginning year of 2014 and forecasted needs for the future target year of 2023. Table data is sorted by HEGIS space category.

Table Five (B) presents data on utilization of building classroom and laboratory spaces during the peak use hours of 10AM to 2PM.

Review of Table Five data produced the following quantitative conclusions:

1. Using the 2006 MHEC parameters, current space available campus wide is *not deficit*; however, by target year 2023 the data predicts a campus wide *deficit of 24,300 square feet* of useable space. This figure includes inactive or vacated spaces.
2. Applying 2006 MHEC parameters, **current space deficits** include these specific venues:
 - *Open Laboratory*
 - *Office and Conference Room*
 - *Testing and Tutoring*
 - *Study Area*
 - *Special Use: Athletics and Greenhouse*
 - *General Assembly, Exhibition and Meeting Areas*
 - *Food Facility*
 - *Merchandising*
 - *Support Areas for Data Processing, Central Service and HAZMAT Storage*
3. For these specific venues, we predict the current total deficit of 38,400 square feet will increase to a total 55,200 square feet by 2023.
4. Also for these specific venues, the greatest deficits are in athletics, study, and open laboratories spaces. *This Plan addresses the identified need for study and laboratory space.* Expansion of athletic facilities is not an institutional priority at this time.

5. Applying 2006 MHEC parameters again, significant surpluses are present in the categories:

- *Class Laboratory,*
- *Classrooms,*
- *Support Areas for Shop, and*
- *Shop Storage.*

6. Finally, applying information presented in Table Five (B), the College utilizes only 45% of classroom and laboratory spaces.

Qualitative Conclusions

As documented in Table Five A, a pronounced deficit exists in laboratory and student study spaces. *To meet our strategic goal of student success, the College must incorporate these needs into capital projects proposed in this Plan.*

College leadership responded to Table Five data and incorporated certain subjective knowledge into the decision-making process, including the analysis of class size at the time of building construction versus current classroom size for specific programs.

With respect to programs contained in the **Technologies and Continuing Education Buildings**, we concluded that *classrooms and laboratories might be larger than currently needed for some programs and less than needed for other programs.* For these two buildings, we considered *current and projected class size, as well as the physical shape and mobility of technical devices in today's business environment.*

Additional subjective conclusions by ACM leadership resolved that *reconfiguration of existing classroom and laboratory spaces*, as opposed to new construction of space for delivery of technology-based learning, *is necessary if the College is to meet student-learning needs.*

Further qualitative analysis of Tables Five data also produced recommendations to address other space deficits by reconfiguring existing surplus

spaces, as feasible. These recommendations included:

- i. Reduction of stack areas to meet deficit in study, testing, tutoring or exhibition space;
- ii. Reduction of classroom space to meet deficit in support services and office space;
- iii. Reduction in student lounge area to meet deficits in study, meeting, and exhibition spaces.

College leadership also concluded from the analysis that spaces for conferencing, office staff, and student study *are current unmet needs, which have the potential to expand with future College growth and could continue to be areas of deficit space.*

In conclusion, this examination of current and future space needs produced the following priorities within the 2014-2023 Plan:

PRIORITY: Removal of barriers to full access to programs available only in the Technologies or Continuing Education buildings must occur.

The presence of these barriers directly influences student success. Proposed Renovation programs for the Technologies and Continuing Education Buildings correct and remove existing identified architectural barriers.

PRIORITY: Open laboratory space is the *second greatest need* and will continue to be a significant need if not addressed.

The proposed Technologies Building renovation corrects space deficits for class laboratories. In addition, the completed project will supplement existing student study areas in the structure.

PRIORITY: Office and Data Processing spaces are the *next greatest needs* and will continue to be a significant need if not addressed.

Presently, the College's Information Technologies Department is located in the **Technologies Building**. Space currently apportioned is insufficient for maintenance of the college-wide IT network. Technician workshop space and storage for parts and equipment is virtually nonexistent. It is a dysfunctional environment for the College's most critical system and interposes inefficient workplace processes, which diminish ACM's ability to meet the strategic goal of a healthy employee workplace.

The renovation program proposed corrects space deficits for data processing space and IT departmental office spaces. However, correction of the full deficit cannot occur within the building's current footprint without permanent relocation of another departmental program.

Following a data-gathering process between administration, curriculum, and continuing education departments, we identified the following options as feasible solution(s) to the deficit:

- i. New construction of a modest facility (nonindustrial type construction) for the physical training component of the continuing education program now occupying approximately 6,000 square feet in the building. Vacated space is then configured for open laboratory and office spaces or the IT or Forestry Department(s) relocated to this vacated space.
- ii. New construction of an industrial grade facility for the IT or Forestry Department. Total space available for configuration after relocation of the IT Department would be adequate for open laboratories and offices. Relocation of the Forestry Department singly would provide only 58% of the total space needed for reconfiguration.
- iii. New construction of an approximate 6,000 square feet addition and configuration of interior space to achieve 4,000 square feet (minimum) of the total deficit in open laboratory and office spaces.

PRIORITY: Float space (temporary relocation space) is insufficient to permit renovation of these two buildings in a timely, ordered manner, which does not disrupt student learning.

The proposed modernization of the Technologies Building requires relocation space for the entire IT Department and the workforce program. College leadership recognizes that the ideal relocation plan would move the highly critical IT Department, including servers and related equipment, **once** into permanent quarters. However, sufficient space for the specialized requirements of cooling server towers and air quality is not available in any other campus building.

Considering the surplus of classroom space purported in Table Five A, float space for relocation of departments and/or specific programs is available, but **requires retrofitting** technology-learning centers.

Consequently, College leadership determined that relocation of specialized technologies programs (to the greatest extent possible), be restricted to space within the building. This constraint requires relocating into other buildings, the Western Maryland Officers Institute and the IT Department, which cannot be exposed to the excessive dust building-wide modernization will produce.

With these limitations, **new construction** of an appropriate facility for either the IT Department or the officer training workforce program is **required** to complete the Technologies Building renovation program.

Summary of Parking Needs

TABLE SIX: Computation of Parking Space Needs (Fall 2014)							
PARKING CATEGORY	FACTOR	CURRENT			NEXT 10 YEARS		
		NEED	INVENTORY	SURPLUS/DEFICIT	NEED	INVENTORY	SURPLUS/DEFICIT
FTDE-T	0.75	1595	1,115	(480)	1886	1,115	(771)
FT-FAC & FT-STAFF	0.75	226	190	(36)	230	190	(40)
SUBTOTAL		1820	1305	(516)	2116	1305	(811)
VISITORS	0.02	36	26	(10)	42	26	(16)
REGULAR SPACES		1857	1331	(526)	2158	1331	(827)
RESERVED ACCESSIBLE	0.02	37	31	(6)	43	35	(8)
TOTALS		1894	1362	(532)	2201	1,366	(835)

Quantitative Conclusions

Table Six presents data for the beginning Plan year of 2014 and forecasted needs for the future target year of 2023. Data is sorted by HEGIS space category. Review of Table Six data produced the following quantitative conclusions:

1. Applying 2006 MHEC parameters to present enrollment and employment statistics, current parking available campus wide is *deficient by 38%*. By target year 2023, the deficit will *increase approximately 157%* to 835 spaces.
2. Applying the same parameters, current deficits in parking are present for all categories, with the *greatest demonstrated need in parking for FTDE students*.

Qualitative Conclusions

As Table Six reflects, student parking space is grossly insufficient for current and target year 2023 needs. To meet the *strategic goal of student success*, these needs were included into capital projects proposed in this 10-Year Plan.

College leadership responded to Table Six data and integrated certain subjective knowledge into the decision-making process, including:

- An examination of traffic flow patterns in conjunction with class times,
- Recognition of a higher percentage of full-time daytime commuting students, and
- Parking available near individual buildings.

Our qualitative analysis considered the nature of the College's structure, recognizing that as a community college parking needs were greater than MHEC space allocation guidelines. We incorporated into our analysis the subjective qualifier of providing for industrial and workforce training programs not measured by the MHEC formula.

The examination of parking recognized a pronounced campus-wide deficit, which would continue and expand if not corrected. Our conclusion highlighted the fact that deficits *cannot be addressed by reconfiguring existing spaces since no surplus spaces exist.*

With respect to programs in the Allied Health and Technologies Buildings, and their proximity to the College Center and Physical Plant buildings, we concluded parking *was severely congested* and must be addressed in our Plan. This area is hereinafter referred to as the "*congested area.*"

Final qualitative analysis of Table Six produced these Plan recommendations:

- i. New construction of 50-100 parking spaces beginning first in the *congested area,*
- ii. Reassignment of 10% of employee-designated spaces as student spaces in the *congested area,*
- iii. Implementation of an employee reward program for using parking lots other than in the *congested area* during peak hours,
- iv. Implementation of an employee and student reward program for carpooling.

ALLEGANY COLLEGE  MARYLAND

FACILITIES AND LAND ASSESSMENT

III. FACILITIES AND LAND ASSESSMENT

Willowbrook Campus Setting

Positioned on the eastern edge of Cumberland (MD), Allegany College's main campus was established on 22 acres of gently rolling land improved by academic and service buildings, outdoor sports venues, parking lots, access roads, and recreation facilities. The mountainous geography of western Maryland in combination with a wide river valley floor creates a rustic, rural setting for our campus.

In addition to the developed campus site on Willowbrook Road, the College is enriched with an additional 300+ acres employed for agricultural or training purposes or remaining in natural mountain drainage courses, wetlands, meadows, and timber. ACM's nationally recognized Forestry Program uses a non-contiguous 42-acre parcel for hands-on-training of students.

As the campus continued development and growth, we retained our rural identity with minimalist architecture and organic building exteriors complementing the site's inherent natural beauty. After the 1990s, new construction was limited to a modest Transportation Building, an addition to the Allied Health Building, and several open-air venues.

All College properties are situated within targeted growth and revitalization planning areas identified by *PlanMaryland*.

Unique Characteristics of the College

Allegany College is proud of four distinct characteristics, which set us apart from other Maryland community colleges.

First, our unique location in western Maryland, which abuts 2 other states, attracts a student population from a bounty of cultures with diverse academic and workforce needs. Our daytime students commute from no less than 22 counties in 3 states. Commute times can be more than an hour one-way. No other Maryland community college serves a geographic region this extensive.

Second, no other community college in Maryland duplicates our exceptionally high ratio of contact hours to credit hours. Our high percentage of career programs translates into more hours of training spent in special clinics. More than 50% of ACM students enroll in technical or health-related career programs. *This high percentage requires ACM to offer and maintain contemporary laboratory and clinical education experiences. Such offerings require modern equipment and facilities, which must, by nature of the programs, contain a higher square footage per full-time equivalent student than other curricula.*

Third, we are unique for our high percentage of full-time students, currently 52%. Most Maryland community colleges enroll higher percentages of part-time students. *This distinct characteristic creates the need for a higher percentage of full-time instructional faculty. Added to this is the industry norm that the higher percentage of traditional students attends classes during the daytime hours. Together, these conditions require more full-time faculty working during daytime hours to instruct and connect with this student population.*

Fourth, Allegany offers safe, affordable housing to 236 resident students. *Maintenance of student residential facilities is a unique feature for community colleges and evidences our regional appeal and our commitment to the success of our students.*

Factors and Initiatives Impacting Land Use

The Willowbrook campus is situated on land easily adapted to construction. Of the campus' 22 acres, 11 remain undeveloped and available for any construction needed to address forecasted student population growth or program expansions.

In addition to the Willowbrook campus, another 348 acres of College-owned land is distributed in the following uses:

<i>Outdoor Recreation Facilities</i>	27.0
<i>Arboretum</i>	3.5
<i>Maintained Lawn & Trees</i>	15.0
<i>Forestry Plantations</i>	27.0
<i>Managed Forest</i>	128.0
<i>Driveways, Roads & Parking</i>	17.0
<i>Open Land</i>	67.0
<i>Water (Evitts Creek)</i>	4.5
<i>Forest Land In Proximity To Campus</i>	45.0
<i>Student Housing Site & Parking</i>	13.0
<i>Other</i>	1.0

Although ACM land holdings are significant, *not all acreage is useable for development and not all parcels are contiguous*. Land parcels traditionally used for agriculture remain utilized as hayfields and pasturage. Wooded parcels remain in standing timber. Wetlands and drainage basins remain in natural states. Approximately 128 acres are formed in mountain terrain with steep grades.

The College's realty holdings are easily accessible to the I-68 corridor, an asset to the marketability of educational programs at the Willowbrook. This proximity also makes these land parcels desirable to private investors, but *the College has no plans to divest any of these parcels. Conversely, the College has no plans to acquire additional realty.*

College leadership recognizes that the 22-acre Willowbrook site will accommodate a limited number of additional buildings, outdoor recreation, or parking areas, and will adopt appropriate development strategies when needed. Leadership also recognizes a *moderate impact* to expansion can occur by the increasing development of non-owned properties sharing boundaries with ACM properties. Although identified as a factor of impact, the **potential** for Willowbrook to be encircled by private development is **not viewed as a major threat to ACM viability**, but as a dynamic to be considered in future **expansion choices**.

More importantly, the College recognizes this potential for *encirclement* may have the **earlier impact** on development of additional academic workforce programs and training programs, which require use of larger parcels of land (i.e., wildlife maintenance, agricultural, etc.).

As an additional element of the planning process, College leadership acknowledges the following internal and external influences, which *may affect future and building use*:

- 1) *All realty holdings are within targeted growth and revitalization areas identified by PlanMaryland.*

Changes in state planning needs could impact campus growth 20-50 years in the future.

- 2) *Current or future expansion of the Willowbrook Health Corridor, which began with the merging of two aged area hospitals in to one state-of-art regional medical center.*

The regional medical center immediately adjacent to Willowbrook supports our health care programs with on-site clinical tours, training and internships. Land once owned by the College is now the

expanded medical center site. As undeveloped land fronting the corridor becomes new physicians' offices and medical treatment facilities, it is logical that future hospital expansion could require separation of additional ACM acreage for the benefit of our regional community.

- 3) *Current or future College-wide security needs as identified in periodic updates of campus vulnerabilities and security threats assessed by the Coordinator of Security.*

ACM recognizes this constant assessment of security risks as an important element of daily operations, which require rapid response and mitigation in the form of both personnel and financial resources. In response to the growing crisis of security risks in all economic sectors, we initiated a Certificate Career Program in the growth field: Cyber-security. This Certificate Program, introduced fall 2015, will transition into an accredited Associate Degree within the next three fiscal years. *Expected growth in this specific technology is a new factor we considered in the proposed Technologies Building Project.*

- 4) *Current or future impact from measures implemented to reduce consumption and cost of energy for the campus.*

ASHRAE Level 2/3 energy audits for campus infrastructure and buildings will occur during calendar year 2016. The College expects a recommendation to convert to natural gas most buildings using fuel oil and propane. *We incorporated this anticipated recommendation into the proposed Technologies Building renovation.* Use of natural gas requires new construction of an underground pipeline system. *This new underground utility affects the placement of future buildings and facilities.*

- 5) *Current or future impact of recommendations produced by the new Educational Master Plan (EDMP).*

Annual initiatives expanding academic and workforce programs will require additional classroom, laboratory, and study spaces and will contribute to existing shortage of parking.

These factors considered, the 2014-2023 Facilities Master Plan identifies **short-term** needs of our physical plant and provides recommendations for the College's projected **long-term** needs through the next decade. (Please refer to Table 11.) **Our main goals for the 2014-2023 Plan are:**

- Sustainable renovation of two buildings providing critical academic support;
- Implementation of planned renewal cycles for existing facilities;
- Implementation of improved capital assets and preventative maintenance programs;
- Expansion of campus parking facilities;
- Enhancement of existing green spaces; and
- Revision of college policies directly affecting successful achievement of the FMP.

Physical Development of Willowbrook Campus

The Willowbrook campus originated (1969) with construction of 7 buildings strategically sited around an open-air plaza. The initial campus was designed to serve a student population of 1,000.

In the 1970s, the College added the Technologies and Continuing Education Buildings on opposing ends of the original peripheral.



Continuing Education Building

Incremental development continued in the 1990s with addition of the Allied Health and Bookstore/Advancement Center Buildings, Welding and Automotive Laboratories and a storage facility. In addition, the Turning Point Center and the off-campus Gateway Center were acquired. During the 1970-1999 timeframe, the College also added outdoor recreational and parking facilities.

Construction of an Allied Health annex, a second storage building (2005), a Transportation Department facility (2007), and construction of the Serenity Garden and Labyrinth finalized campus growth as leadership **priorities** shifted to **renewing and preserving existing facilities**.

Tables Seven to Eleven present critical information relative to our 17 buildings.

Prior to this 2014-2023 Plan, the College completed major renovation of the original Humanities, Science, Physical Education, College Center, and Library, Automotive Technology, and Physical Plant buildings.

Significant modernization of the 1975 Technologies and Continuing Education Buildings is now a **major focus** in this Plan, which proposes renovation of the Tech Building **first** due to increasing learner demand for programs offered in this building.

Technologies Building



Immediate plans for the Technologies Building **(Project 1)** include:

- Replacement of roof surfaces now passed projected end-of-life (EOL);
- Replacement of an outdated and energy inefficient heating plant which has also passed EOL;
- Correction of noncompliant ADA elements, including restrooms and mobility between building levels.

Other major projects proposed in this FMP include:

- Replacement of other building roofs reaching EOL during the Plan period of 2014-2023;
- Detection and repair of suspected underground water leaks;
- Identification and removal of any mobility barriers and repair of accessible routes;
- Extension of existing parking facilities;
- New construction of natural gas pipeline.

TABLE SEVEN: Building Inventory (Fall 2014)

BUILDING NAME	CONSTRUCTION YEAR	YEAR ROOF LAST REPLACED	YEAR OTHER CAPITAL IMPROVEMENT	DESCRIPTION OF SIGNIFICANT CAPITAL IMPROVEMENT OR MODIFICATION
Advancement/ Bookstore	1991	1991		
Allied Health	1994	1994		
Automotive Tech	1969	2002	2011	New Geothermal system; new Thermal barriers at doors and windows; Major electrical upgrade
College Center	1969	2000	1996	ADA compliance; modernization of common area & office spaces; HVAC expansion; equipment replacement
Continuing Education	1978	1999		
Gateway Center	1930	Unknown		Opened by ACM 2001
Humanities	1969	2000	1995	Building Expansion; ADA compliance; modernization of classroom office spaces; equipment replacement.

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BUILDING NAME	CONSTRUCTION YEAR	YEAR ROOF LAST REPLACED	YEAR OTHER CAPITAL IMPROVEMENT	DESCRIPTION OF SIGNIFICANT CAPITAL IMPROVEMENT OR MODIFICATION
Library	1969	2005	2007	Building Expansion; ADA compliance; modernization of interior spaces & building mechanicals; equipment replacement. New Geothermal system.
Physical Education	1969	2006	2006	Roof Replacement; New Geothermal system; Pool system and Natatorium renovations
Physical Plant	1969	2002	2011	
Sciences	1969	2001	2001	Roof Replacement; space reconfiguration; Air quality improvements
Storage Bldg. 1	1996	1996		
Storage Bldg. 2	2005	2005		
Technologies	1975	1975	2017*	<i>HVAC replacement, Roof replacement, Accessibility & ADA compliance</i>
			2018-20*	<i>Energy conserving measures including window and doors; Interior space renewal; equipment replacement</i>
Transportation	2007	2007		
Turning Point Center	1994	2007		Opened by ACM 2007
Welding / Automotive	1991	1991		

Building Inventory and Use

Our buildings serve numerous functions including academic, workforce development, laboratory, administrative, student support and institutional support. Campus buildings are categorized as either *Academic & Academic Support* or *Institutional Support*.

CATEGORY: Academic & Academic Support

Allied Health Constructed in 1994 to consolidate into one facility all ACM health programs previously dispersed among numerous buildings throughout campus; the Allied Health Building is one of our newest. In response to growth in allied health programs, the College funded and constructed a 6,000 square foot addition in 2007.

Automotive Renovation of the Automotive Technology Building (1969) was completed in mid-2012. Work included installation of new geothermal heating, installation of thermally improved windows and doors systems, major electrical systems upgrade, correction of ADA and code compliance issues, and minor remodeling of interior office spaces for improved workflow. The building had some roof repair.

College Center An original structure, the College Center had significant renovation completed in 1997. The College Center contains financial and general administrative offices, offices for student support services, student lounge, and cafeteria. The renovation expanded cafeteria and kitchen, reconfigured office areas, and modified areas to correct ADA deficiencies. Capital improvements included installation of two new chillers supporting 4 other campus buildings and replacement of one roof section.

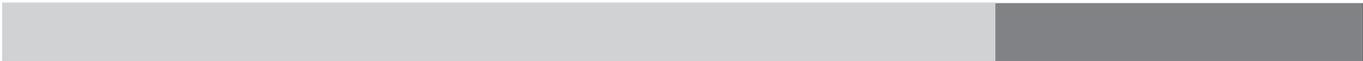
Continuing Education The Continuing Education Center was constructed (1978) in response to regional demand for expansion of the number and variety of non-credit courses and programs offered by the College. Today, the structure allows ACM to offer an extensive catalogue of workforce development and continuing learner opportunities. *This building requires significant interior and equipment modernization and removal of accessibility barriers.*

Humanities The Humanities Building (1969), containing classroom space for core academic subjects, was renovated in 1995. Modifications included ADA compliance and mechanical systems, with HVAC renewal. An expansion to the original building included new art studios and computer labs.

Library	The Library was constructed 1969. The 2005-08 renewal project corrected non-compliant ADA issues and infrastructure insufficiencies, modernized building mechanic systems to accommodate current technology, and renovated interior finishes. The Library was the first ACM building to include a geothermal heating/cooling system to decrease energy costs. During the renewal, new construction of a 6,000 square foot annex accommodates seating and processing spaces.
Physical Education	Two phases beginning 2004 and ending 2006 renovated the 1969 vintage Physical Education Building. The modernization effort corrected non-compliant ADA issues and infrastructure insufficiencies, implemented several energy conservation measures, provided additional locker room space and an additional classroom. The renewal reconfigured internal core spaces to facilitate efficient operations management. Renovation of the pool systems and roof replacement were also major components. The building was retrofitted for geothermal.
Sciences	The Science Building (1969) reopened for the 2001-02 academic year after significant renovation and reconfiguration of space. The update added classroom and seminar spaces, expanded a computer lab, and modernized instructional laboratories. Modifications were made for ADA compliance and mechanical systems were renewed.
Technologies	The 1975 construction of the Technologies Building provided classroom and laboratory spaces for the College to expand technology-based career programs. <i>This building requires significant interior and equipment modernization and removal of accessibility barriers.</i>
Welding Lab	The Welding and Automotive Lab Building was erected 1991 to meet the increased demand for a skilled workforce for the industry.
Gateway Center	(DOWNTOWN) Ownership of the Gateway Center transferred to the College in 2005. Currently, it houses the Culinary Arts and Hospitality Programs. Others had made significant renovations to the building, but additional work was completed by ACM in 2001, 2005, and 2011 in response to the growing Culinary Arts Program and the rental space needs of several State of Maryland agencies.

CATEGORY: Institutional Support

Advancement	The Advancement Office and Campus Bookstore moved to a new 1991 facility next to the College Center. The new structure expanded the retail space for textbooks, student supplies, and college apparel. The structure also provided consolidated office spaces for the ACM Foundation, public relations, and desktop publishing.
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Physical Plant	Also an original 1969 building, the Physical Plant Service Building was modernized in 2011 with addition of a geothermal HVAC system, new windows and doors, and new vestibule area. The renewal corrected ADA and other code compliance issues and provided minor remodeling to interior office.
Storage Building #1	Using College funds in 1996, the College constructed a metal shell building designated Storage Building #1, to alleviate relocation space needs during several renovations. Since 2008, the Continuing Education Department uses the structure as a training facility.
Storage Building #2	Storage Building #2 is a modest pole-built structure of approximately 2400 s.f.; constructed in 2005 to provide additional central storage space for physical plant and inventory.
Transportation	The structure houses offices for transportation staff and a repair and storage facility for college cars and buses. Erected in 2007, the Transportation Building is utilitarian in construction.
Turning Point Center	Acquired 2006, Turning Point Center is a 1300 s.f. single-story structure adjacent to the campus. Minor alterations in 2007 permitted use as an adult student advising and support center. In FY15, the College reassigned the space for childcare needs and completed minor improvements to meet fire safety codes and the physical needs of small children.

To determine the physical needs of our building inventory, we first identified use of the building; then discussed current and potential future use of each structure. For each building, we then assessed both **short-term (less than 3 years)** and **long-term capital needs**. Once determined, we categorized these needs as follows:

1. Emergency : An Immediate Threat to the Safety of Life or Property
2. Short-Term Critical: A Potential Threat to the Safety of Life or Property if not corrected within 36 months
3. Long-Term Critical: A Potential Threat to the Safety of Life or Property if not corrected within 120 months
4. Noncritical

After categorizing each building, a priority was assigned to each capital projects. Table Eleven presents our final *Capital Projects List* and proposed implementation timeline.

Building Architecture and Height

Campus founders recognized the advantages of a gently sloped site in the positioning of original buildings. Developed with a minimalist architectural style, the College sustained a noninvasive philosophy utilizing natural geographic features to camouflage building heights.

Continued development affirmed the wise use of natural changes in elevation across the campus site by positioning new buildings in a manner that minimized any potential invasive impact of building height on the campus environment. The result is a prospect of multi-storied buildings seamlessly blended with single story structures for a campus, which enhances, rather than obscures, the suburban setting.

Campus buildings renovated to date have automatic fire suppression systems and meet current ADA requirements for access. Two academic buildings remain on our capital projects list for significant renovation: the **Technologies** and the **Continuing Education** Buildings. Neither building is equipped with an automated fire suppression system.

Recognizing our responsibility as an educational institution with thousands of students on campus daily, we **prioritized renovation of these buildings to insure public safety.**

Utilities Infrastructure

Engineering of the Willowbrook campus provided for underground installation of all utilities, including telephone. Continued campus growth adhered to this design concept, to the greatest extent possible. Fuel tanks are buried for safety and continuity of minimalist aesthetics.

A series of campus wide receptors connecting to the municipal system collects and drains storm waters.

Sewer lines are terra cotta. At this time, there is no significant history of either blockages or tree roots invasion into the terra cotta lines, but the potential for severe blockages exists with settlement of the pipeline-in-fill construction, the advancing age of the system, and the number and placement of trees campus-wide. Estimated remaining life for sewer is **10-15 years.**

Water lines are steel. Anodes do not protect the water line, although a steel pipe-in-soil system requires cathodic protection. Most unprotected steel systems fail at 40-50 years depending on soil acidity and dampness. Considering the soil types at Willowbrook, estimated remaining life for the unprotected steel pipe system is **0-5 years.** Presently, a significant leak is suspected under the central plaza near the College Center. Water frequently invades the lower elevation of the elevator shaft and dampness is evident in the landscaping.

The campus has several buried single-wall steel fuel tanks not provided anode protection. Although there does not appear to be any evidence of leaking fuel, the estimated life of such tanks would be equivalent to the steel water line and leaks may be predicted during the term of this Master Plan.

The College cools the majority of campus buildings using chilled water systems. Several buildings are looped together for greater efficiency.

During past renovation projects, several buildings were fitted for space heating via a linked geo-thermal system.

To meet our strategic goals, we recognize the financial need to upgrade where energy-conserving

measures have reasonable return of investment and to utilize more cost-effective energy sources. In response, ACM contracted for an ASHRAE Level II Energy Audit to identify (i) best use practices in the repair and replacement of aged building systems and infrastructure components, and (ii) any unidentified capital defects, which should be added to the prioritized list of needs.

Conversion to natural gas is an expected recommendation to achieve significant cost savings in heating campus buildings currently using fuel oil or propane. Natural gas is not currently accessible on the campus. Conversion requires construction of an on-campus gas distribution system.

Telecommunication and computer network cables are buried systems. The aged extreme wireless equipment was subject to frequent breakdown as access points reached end-of-life. In mid- 2015, networking equipment was replaced using college funds in a \$310k project. In tandem, ACM-IPT monies (\$63k) was used to replace aged core network switches with newer switching technology, allowing network core speeds to reach 10Gbps. Fifty percent of endpoint switches were replaced to increase speeds to 10Gbps. By improving backbone speeds, the College *achieved another strategic goal with implementation of an efficiently and effectively operating wireless system.*

In addition, replacing digital phones with IP phones is occurring along with implantation of auto-attendant calling trees for the campus.

Pedestrian Circulation and Green Spaces

Pedestrian traffic flows without restriction throughout campus facilities over a network of sidewalks, crosswalks, and paved pathways. Willowbrook features convenient parking and easy walking distances between all buildings

and sports or recreational venues. A focal point of campus pedestrian flow is the circular route and gardens, known as the Labyrinth and Serenity Garden.

We are a *Tree Campus USA* designated facility with an extensive variety of trees and shrubs planted campus-wide and a specific dedicated area used as a learning lab for Forestry and Biology students. The established arboretum encloses a portion of the primary walking trail, enhancing the rural campus experience. Perimeter campus zones feature maturing timber plantings.

Pedestrian circulation extends over Evitts Creek, crossing from the campus onto walking trails managed by ACM's Forestry Department. Here, walking paths weave amid an abundance of mixed hardwoods and conifers. These tranquil forested areas provide a beautiful mountain setting enhancing the Willowbrook campus.

Promotion of student success and wellness are identified strategic goals of the College. Considering these, we examined pedestrian routes during various times of a day/night cycle and concluded that few concerns for pedestrian comfort and safety exist, but several were recognized:

- i. Site area lighting at campus borders, especially in the roadway area between the campus edge and student housing;
- ii. Site area lighting in the vehicle storage area at the Transportation Building; and
- iii. Limited visibility for vehicle drivers turning onto the service road at the Technologies and Allied Health Buildings crosswalk areas. *This is a significant point-of-conflict between pedestrian and vehicular traffic.*

We addressed these concerns in the capital needs assessment of this Master Facilities Plan.

Vehicular Circulation and Parking

Allegheny College of Maryland has a highly visible primary campus entrance directly off Willowbrook Road adjacent to the regional medical complex. Traffic flow over Willowbrook Road is controlled near the ACM entrance by two roundabouts, which moderate vehicle speed and succession, allowing easy ingress onto the campus and rapid egress in the I-68 direction.

Campus traffic first moves over a short avenue; then is routed into one of two parking areas. Parking is situated around the perimeter of academic buildings and is within a five-minute walk to any facility. Traffic speed is controlled with curved passage lanes and offset stops, making it difficult to race through lots on a straight line.

Exiting traffic making a left hand turn onto Willowbrook Road is frequently delayed during peak daytime hours due to the volume of medical center and local traffic traveling toward I-68. A separate left turning lane is provided so that right-turning traffic flow is not retarded.

Parking is restricted along the single service road entering at the northeastern sector of the campus. Because parking spaces in this area are limited, traffic flow frequently constricts at the Technologies and Allied Health Buildings. Students parking in manners, which further narrow traffic lanes or who park in restricted zones, often exacerbate this. *Currently, this is the only area where the College recognizes a significant deficit in parking facilities.*

At this time, 1,360 parking spaces are available for students and employees combined. These include both paved and graveled lots. On-street parking is not permitted immediately off-campus along either Willowbrook or Old Willowbrook Roads.

There is no recognized need for garage type facilities, but current need as well as predicted growth in academic programs *necessitates immediate expansion of parking areas.*

College leadership identified carpooling as a means to (i) reduce campus-wide parking needs and (ii) promote sustainability by decreasing the number of single occupant cars traveling daily. This option will be explored in *partial solution to the deficit* at Allied Health and Technologies buildings.

Promotion of student success and wellness are identified strategic goals of the College. Considering these, we examined vehicular routes during various times of a day/night cycle and concluded that *few concerns for motorist comfort and safety exists*, but several were recognized. We addressed the concerns below in the capital needs assessment of this Master Facilities Plan:

- i. Limited visibility for vehicle drivers turning onto the service road at the Technologies and Allied Health Building crosswalk areas. *This is a significant point-of-conflict between pedestrian and vehicular traffic.*
- ii. Lack of directional signage at the campus drive “Y” intersection where outgoing traffic emerging from parking at left and right directions blends back into incoming traffic. Opportunity for collision occurs when persons unfamiliar with the traffic route hesitate to read signage and/or determine the correct direction of travel.



Congested parking behind Allied Health Building & along service road, 9:30 a.m. on a Monday.



Parking in a no parking zone.



Parking in a no parking zone.



Lack of directional signage at the "Y" intersection.

ALLEGANY COLLEGE  MARYLAND

MASTER PLAN AND IMPLEMENTATION

IV. MASTER PLAN AND IMPLEMENTATION

Planning Concepts, Principles and Priorities

The 2014-2023 Facilities Master Plan is constituted on a number of planning concepts, including Allegany College of Maryland's desire to achieve the following 2015 **Strategic Plan Priorities**:

Institutional Priority One - *Student Success and Access*

- Provide sufficient, excellent facilities for community learners and learning
- Identify program growth and plan to accommodate such growth with new or renovated facilities
- Remove existing architectural barriers
- Improve safety of pedestrian and motorized traffic and provision

Institutional Priority Two - *Organizational Development and Support*

- Promote positive employee engagement, wellness, and work-life balance.

Institutional Priority Four - *Resource Management*

- Promote sustainable practices and implement use of sustainable architecture, landscaping and streetscaping
- Create and implement a long-range plan for facilities renewal
- Insure future campus development or peripheral development complements and enhances the existing campus while retaining green spaces.

This Facilities Master Plan specifically considers **Goal Four of the Educational Master Plan for 2015-18**. The goal of *creating a technologically competent institution that utilizes current and emerging technologies to allow students, faculty and staff to be globally prepared for the new-knowledge economy*, became a significant planning concept for renovation programs proposed for the Technologies and Continuing Education Buildings.

In our 2014-2023 Plan, we recognize that establishing and maintaining a physical environment equal to the excellence of ACM's academic programs is a critical factor in fulfilling the College mission. To meet our mission as *a lifelong learning community dedicated to excellence in education and responsive to the changing needs of the communities we serve*, planning concepts, principles and priorities used in this Plan provided for:

- *Technically advanced classrooms and laboratories,*
- *A safe, healthy identifiable campus and workplace environment, and*
- *College-wide practices promoting sustainability.*

Updating the Plan

*A strategic goal for Allegany College of Maryland is the best use of resources. To accomplish this, it is our objective to participate in **long-term planning for the renewal of Willowbrook facilities**. The 2014-2023 Facilities Master Plan is a critical planning element. Allegany College of Maryland will periodically update the Plan to assure coherent, consistent planning of incremental campus improvements and capital development.*

It is our intent that renewal and development efforts be implemented in a manner, which provides the highest return on investment for the College and for our learning community. Capital renovations proposed in the Plan fully consider stewardship of public dollars invested by State, County, and College.

This document is the *5th Facilities Master Plan* submitted to the Maryland Higher Education Commission (MHEC). The College's Board of Trustees reviewed and approved this Plan.

ACM will comprehensively examine this Plan at 5-Year intervals or more frequently if substantive changes occur in enrollment patterns or funding. The process will include development or updating of implementation plans for approved or proposed Projects.

Finally, as required by COMAR, any budget request to MHEC will include a Plan update.

Facilities Renewal and Expansion

A. Renewal

Renewal and maintenance of College facilities for sustainability and usefulness to the institution is an ongoing concern usually not fully addressed in Allegany's annual College budget.

All buildings and systems have life cycles. One hundred years is the common useful life of most industrial grade buildings and foundations, with shorter terms for interior finishes, roofs and HVAC equipment, and longer terms for structural components and electro-mechanical systems.

Utility systems normally have life cycles of 50-75 years, depending on the type of materials used in construction and obsolescence of technology. For example, a

terra cotta sewer system does not have the same EOL term as plastics. The EOL cycle of carpet is 33% that of vinyl or composite tile. Brick veneer has 4x the life cycle as vinyl siding. With an understanding of these parameters, it is common for institutions to allot a specific percentage of the yearly institutional budget to a *Repair and Replacement Fund (R&R)*.

Allegany College has not fully adopted a cyclic R&R principle, yet. Consistent, annual reservation of funds supports an on-going, continuous preventive maintenance program, which over time, reduces capital project dollars needed to correct damage from deferred maintenance and emergency replacement of obsolete systems. *Recognizing institutional strategic goals may be accomplished by adopting this stewardship tool, College leadership will explore implementing a restricted R&R fund within the term of this Plan.*

Renewal is not restricted to buildings. Landscape and *green spaces* must also be preserved, and expanded, when possible.

It is a generally accepted understanding that green spaces are valuable tools in promoting employee health and wellness, and ACM utilizes green spaces throughout Willowbrook. Employees and students share and enjoy an abundance of open green lawns framed with trees and seasonal shrubs. Situated near buildings, outdoor seating areas provide opportunity to relax in the shade of a *Tree Campus USA-planted tree*. The 2014-2023 Facilities Plan *seeks to preserve and enhance ACM green spaces*.

Overall, functional adequacy of Willowbrook campus facilities is good. Renovations to date eliminated the majority of physical accessibility issues and building obsolescence. However, until renovation programs are completed for the Technologies and

Continuing Education Buildings, accessibility issues will exist with the most substantial barrier present in the multi-level construction of the Technologies Building.

In addition, the constant growth in technologies will require the College to carry out periodic upgrades to classrooms, laboratories, and student study areas and provide for electronic instructional devices, computer-generated graphics, video display screens, video monitors, and access to electronic networks external to buildings and to the campus.

B. Expansion

The 2014-2023 Plan advocates *addition of natural gas* as a necessary step in the reduction in cost of campus utilities. Presently, natural gas is available within 100 yards of the main entrance. Extension of service to Willowbrook may be accomplished through partnership with Columbia Gas. Transportation of gas would continue via buried plastic piping owned and maintained by the College. Of course, the inclusion of any new underground utility will affect use of the land above or near the buried system.

The Plan also promotes *expansion of parking facilities* at the Allied Health and Technologies Buildings. The College regularly receives complaints from students regarding lack of parking. This became significant following the 1995 opening of the Allied Health Building when an excessive parking load shifted from two other lots and formed congested parking on the eastern and northern sides of the campus.

The Plan also promotes the *replacement of aged water lines*. The College has an emergency need to detect the source of water seeping into the lowest elevation of the College Center. It is also recognized that a

critical short-term need exists for the planned, staged replacement of steel water lines, which are likely heavily corroded and producing multiple small leaks. We estimate up to 5% of water passing through master meters is lost through system-wide leaks. Over time, this represents a significant loss of dollars.

Final design for the Technologies Building renovation may require absorption of land for construction of an addition or new building to house a specific department or program, and expansion of parking will require land. We estimate that any option pursued will use less than 3 acres of the undeveloped campus. Incorporating this factor into our analysis, we do not expect *existing land use patterns to change* during the ten-year period of this Plan.

However, if future student enrollment significantly escalates in the next few decades, ACM may opt to utilize land parcels in close proximity to the campus for the development of programs or training facilities to meet changes in our College mission and accommodate student growth and development.

TABLE EIGHT: Life Cycle Analysis (October 2015)

BUILDING NAME	YEAR ROOF LAST REPLACED	EXPECTED LIFE CYCLE YEARS	PROJECTED REPLACEMENT YEAR	CRITICALITY**	NOTES
Advancement/Bookstore	1991	25	2016	3	<i>Included in Capital Projects List</i>
Allied Health	1994	25	2019	4	<i>Included in Capital Projects List</i>
Automotive Tech	2002	25	2027	6	
College Center	2000	25	2025	6	
Continuing Education	1999	25	2024	6	
Gateway Center	Unknown	25	2027	6	
Humanities	2000	25	2024	6	
Library	2005	25	2030	6	
Physical Education	2006	25	2031	6	
Physical Plant	2002	25	2027	6	
Sciences	2001	25	2026	6	
Storage Bldg. 1	1996	25	2021	4	
Storage Bldg. 2	2005	25	2027	6	
Technologies	1975	25	2000	1	<i>Eminent Threat – Included in Project 1, which is in design planning mode</i>
Transportation	2007	25	2032	6	
Turning Point Center	2007	25	2032	6	
Welding/Automotive	1991	25	2016	3	<i>Included in Capital Projects List</i>

**Criticality Factors:

- 1 Replacement Significantly Past Expected EOL; Probable Failure During FMP Term
- 2 Replacement Past Expected EOL; Potential Failure During FMP Term
- 3 Replacement Scheduled Within Next 3 Fiscal Years (2016-18)
- 4 Replacement Scheduled Within Next 7 Fiscal Years (2019-21)
- 5 Replacement Scheduled Within Next 10 Fiscal Years (2021-23)
- 6 Replacement on Schedule w/No Critical Status

TABLE NINE: Life Cycle Analysis – Building Renovation (October 2015)

BUILDING NAME	FULL BUILDING:			SIGNIFICANT BUILDING NEED PROJECTED During 2014-2023
	Year of Last Capital Renovation	Capital Improvement or Modification	Current Condition	
Advancement & Bookstore			<p>Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces.</p> <p><i>No renovation needs for program expansion were identified.</i></p>	<ul style="list-style-type: none"> • Roof is at end of useful life cycle
Allied Health			<p>Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces.</p> <p><i>No renovation needs for program expansion were identified.</i></p>	<ul style="list-style-type: none"> • Roof is approaching end of useful life cycle
Automotive Tech	2011	New geothermal system; new thermal barriers at doors and windows; major electrical upgrade	<p>Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces.</p> <p><i>No renovation needs for program expansion were identified.</i></p>	
College Center	1996	ADA compliance; modernization of common area & office spaces; HVAC expansion; equipment replacement	<p>Since 1996, reconfiguration of office spaces to accommodate expansion of student services moderately impacted business office spaces.</p> <p><i>Expansion of the building or relocation of admin units may be necessary to supply space for student programs and needs.</i></p>	<ul style="list-style-type: none"> • Recurring issue with groundwater in lower elevation of building. • Air circulation issues.
Continuing Education			<p>Accessibility & ADA compliance; HVAC replacement, roof replacement; modernization classroom and office spaces; equipment replacement.</p> <p><i>Expansion of space to address current and future regional workforce development needs, renewal of interior, and ADA compliance is required.</i></p>	<ul style="list-style-type: none"> • Roof is at end of useful life cycle • HVAC is at end of useful life cycle • Accessibility barriers to building and accessible route

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BUILDING NAME	FULL BUILDING:			SIGNIFICANT BUILDING NEED PROJECTED During 2014-2023
	Year of Last Capital Renovation	Capital Improvement or Modification	Current Condition	
Gateway Center			Major repair to HVAC and elevator systems were made in mid-2015. This building is aged but in good condition. No capital expenditures are planned at this time. <i>No renovation needs for program expansion were identified.</i>	
Humanities	1995	Building expansion; ADA compliance; modernization of classroom office spaces; equipment replacement	Building is in excellent condition; has no major deferred maintenance needs; and does not require immediate capital expenditures to preserve the building envelope or interior spaces. Small capital improvements were made after 1995, including replacement of A/C equipment (2005). No planned major capital expenditures. <i>No renovation needs for program expansion were identified.</i>	
Library	2007	Building expansion; ADA compliance; modernization of interior & building mechanicals; equipment replacement. New geothermal system	Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces. <i>No renovation needs for program expansion were identified.</i>	
Physical Education	2006	Roof replacement; new geothermal system; pool system and natatorium renovations	Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces. <i>No renovation needs for program expansion were identified.</i>	
Physical Plant	2011	Addition of a geothermal HVAC system, new windows and doors, new vestibule area; correction of ADA and other code compliance issues; modernization of office spaces.	Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces. <i>No renovation needs were identified for this building.</i>	

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BUILDING NAME	FULL BUILDING:			SIGNIFICANT BUILDING NEED PROJECTED During 2014-2023
	Year of Last Capital Renovation	Capital Improvement or Modification	Current Condition	
Sciences	2001	Roof replacement; modernization of spaces; air quality improvements	Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces. A minor project in 2014 improved ventilation & air quality. <i>No renovation needs for program expansion were identified.</i>	
Storage Bldg. 1			Building is in better than average condition; has no major deferred maintenance needs and does not require immediate capital expenditures to preserve the building envelope or interior spaces. <i>No renovation needs were identified for this building.</i>	
Storage Bldg. 2			Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces. <i>No renovation needs were identified for this building.</i>	
Technologies			Building systems are at end of useful life; roof replacement is past due EOL with potential for failure; significant accessibility & ADA compliance issues exist. <i>Renovation needs to sustain technology-based programs and for program expansion were identified.</i>	<ul style="list-style-type: none"> • Roof is at end of useful life cycle • HVAC is at end of useful life cycle • Accessibility barriers to building and accessible route • Renovation needs to support current programs and planned expansion are identified: (i) requires modernization of classrooms, laboratories and offices spaces; (ii) requires relocation of IT department to expanded or vacated space; (iii) requires reconfiguration of interior spaces; (iv) requires relocation of nontechnology-based programs to other existing or new buildings.

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BUILDING NAME	FULL BUILDING:			SIGNIFICANT BUILDING NEED PROJECTED During 2014-2023
	Year of Last Capital Renovation	Capital Improvement or Modification	Current Condition	
Transportation			Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces. <i>No renovation needs were identified for this building.</i>	
Turning Point Center			Building is in average condition; has no major deferred maintenance needs and does not require immediate capital expenditures to preserve the building envelope or interior spaces. <i>No renovation needs for program expansion were identified.</i>	
Welding / Auto Lab			Building is in excellent condition with no major deferred maintenance need and does not require immediate capital expenditures to preserve the building envelope or interior spaces. <i>No renovation needs for program expansion were identified.</i>	<ul style="list-style-type: none"> • Roof is at end of useful life cycle

TABLE TEN: Building Net-to-Gross Efficiencies (October 2015)

BUILDING	GROSS SQUARE FOOTAGE	NET ASSIGNABLE SPACE	NET-TO-GROSS EFFICIENCY
Advancement & Campus Bookstore	7,973	6,829	86%
Allied Health	52,080	32,845	63%
Automotive Tech	17,962	12,122	63%
College Center	61,397	43,158	70%
Continuing Education	19,971	13,229	66%
Gateway Center	31,000	21,011	68%
Humanities	30,709	18,232	59%
Library	24,964	21,063	84%
Physical Education	39,000	26,606	63%
Physical Plant	3,858	2,936	76%
Sciences	34,081	24,899	73%
Storage Bldg. 1	3,600	3,315	92%
Storage Bldg. 2	2,400	2,256	94%
Technologies	52,080	32,845	62%
Transportation	3,400	2,812	83%
Turning Point	1,300	987	76%
Welding/ Auto Lab	3,840	2,901	76%

TABLE ELEVEN: Capital Projects & Implementation Schedule (November 2015)

PRIORITY	PROJECT NAME	USE	IMPLEMENTATION SCHEDULE		
			ESTIMATED COST	ESTIMATED START	ESTIMATED END
1	Technology Building - Project 1	Academic Support	\$3,795,150	Jul-17	Jul-19
2	Gas Pipeline - Project 1	Infrastructure	\$82,500	Jul-17	Dec-17
2	Water Line Replacement - Project 1	Infrastructure	\$125,000	Jul-17	Dec-17
2	Roof - Welding/ Auto Lab	Academic Support	\$115,200	Jul-17	Dec-17
2	Roof - Advancement/Bookstore	Institutional Support	\$239,190	Jul-17	Dec-17
2	New Building - Float Space	Academic Support	\$250,000	Jul-17	Dec-17
2	Parking - Expansion of Lot	Infrastructure	\$75,000	Jul-17	Dec-17
3	Gas Pipeline - Project 2	Infrastructure	\$82,500	May-18	Mar-19
3	Water Line Replacement - Project 2	Infrastructure	\$120,000	May-18	Mar-19
3	Plaza: Repair Fountains/Water Leak	Infrastructure	\$150,000	May-18	Mar-19
1	Design - Technology Building Project 2	Academic Support	\$175,000	Jul-18	Jun-19
2	Parking - Expansion of Lot	Infrastructure	\$75,000	Jul-18	Dec-18
4	Water Line Replacement - Project 3	Infrastructure	\$120,000	May-19	Dec-19
2	Technology Building - Project 2	Academic Support	\$6,000,000	Jul-19	Dec-21
2	Parking - Expansion of Lot	Infrastructure	\$75,000	Jul-19	Dec-19
4	Roof - Allied Health	Academic Support	\$781,200	Jul-19	Jun-20
4	Technology Building - Project 3	Academic Support	\$6,000,000	Jul-21	Jul-23
4	Gas Pipeline - Project 3	Infrastructure	\$40,000	May-19	Dec-19
5	Plaza: Clock Tower Repair	Infrastructure	\$70,000	May-19	Dec-19
5	Design - Continuing Education Bldg.	Academic Support	\$175,000	Jul-22	Jun-23
6	Continuing Education Building	Academic Support	\$18,000,000	Jul-23	Dec-25
TOTAL			\$36,440,740		

Implementation

Tables Eight through Ten present general statistics and current conditions for building envelopes, interior finishes, roofs, and mechanical systems. This information forms the primary basis of our determination of capital needs over the next 10 to 20 years.

Table Eleven exhibits our final determination of renewal and expansion Projects proposed for the next decade along with implementation timelines for of design and construction. Projects are prioritized based on short-term or long-term need and the criticality of the proposed project.

The 2014-2023 Facilities Master Plan is to be used as a general **guide and reference**. All projects proposed are subject to amendment in periodic *Plan Updates* as decisions affecting College growth and leadership evolve.

Funding and Cost Estimates

Considering the funding investment required, it may not be possible to complete within the term of this Plan all capital projects proposed.

Some emergency or short-term capital needs with outlays of **less than \$100,000** may be addressed using College funds. Projects with more significant funding needs must wait for grant funding from Federal, State or Local sources.

For the purpose of the 2014-2023 Plan, *cost estimates* developed used the best information available at the time of estimate including cost-per-unit estimates from local contracting sources and service providers.

We did not identify for each individual project any potential funding sources. Forecasted local funding for the proposed Technology Building is maximized at \$5-6 million. Comprehensive project design will address building and learner needs, upgrading the facility appropriately and without excess expense.

Project Staging

The 2014-2023 Master Plan proposes several projects for COMAR-based capital funding. Project staging depends on availability of local matching funds in conjunction with available State (or other) grant funding.

To maintain our renewal cycle, each subsequent project will be submitted to MHEC for planning and design funding as the earlier project enters construction stage(s).

Prioritized Renewal Projects

Priority One - *Technologies Building*

A. Analysis of Building Use and Condition

Original construction was 1975. The two-story south wing was added in the mid-1980s to accommodate the Electro-mechanical Technology (EMT) program. The space was vacated by EMT in 1998; then partially reconfigured to meet specialized needs of the *Western Maryland Corrections Officer Training Institute*. The *Institute*, an ACM workforce development initiative to address training mandates by the State of Maryland, provides requisite annual continuing education credits and physical training for as many as 1,000 officers employed in western Maryland.

The building also quarters the College's nationally recognized Dendrology Program. Ideally, this program merits facilities more attuned to the physical needs of a forestry program; however, appropriate space in other existing buildings is not available.

The building is also home to the most critical system of the College: the **Information Technologies Department**. Space currently apportioned is insufficient for maintenance of the college-wide IT server network.

Workshop space and storage for parts and equipment is virtually nonexistent. Frequently, Technicians must receive delivery of equipment, move the equipment to another location, configure and prepare the equipment for use in the network, then move the prepared equipment to the final place of use. Repair to equipment often follows the same work path. It is a dysfunctional environment for the College-wide IT network and a “poster-child” example of inefficient workplace processes which diminishes the ability to meet our *strategic goal of a healthy employee workplace*.

Other **critical IT learning centers** situated in the building include the (i) Informational Technology and Multimedia Department, which supports instructional technology for faculty; and (ii) Distance Learning room, which connects Willowbrook to ACM satellite campus locations. These critical technology studios *must function effectively if we are to meet the needs of our students and provide for student success*.

The Technologies Building is the *student-learning environment for our most technology intensive programs and our most rapid growth programs*. Programs for computer science, business, medical & office technologies, along with communication arts reside in the Technologies Building. However, the deteriorated facility and environment *severely impacts our goal of student success*.

Significant deficiencies recognized include:

- Accessibility issues between levels of the expanded building, which effectively renders certain spaces unusable, compromise full use of the building. All accessibility barriers must be removed if Allegany is to meet the *strategic goal of student success*.
- Building roof is significantly deteriorated; system failure is an immediate threat.
- Building HVAC plants are significantly past end of useful life and obsolete. System failure is an immediate threat.
- Inefficient thermal barriers permit waste of energy dollars.
- Public safety is compromised by absence of automated fire suppression system.
- Building electrical system may not support program expansion necessary to meet learner needs.
- Interior finishes need renewal and space requires reconfiguration for efficiency in offices, classrooms, laboratories, and storage.

B. Proposed Renewal Program

Development of the new *Educational Master Plan* required leadership to revisit the comprehensive modernization concept proposed to MHEC in the May 2014 Parts 1 and 2 planning study. The College envisions a full renovation program staged over multiple Projects to allow for limits on (i) local funding available annually, and (ii) alternate space available on campus for temporarily relocation needs (*float space*). Most importantly, using separate Project increments permits the College to accelerate the scope of work needed to first address **critical** physical needs.

A limit on total local dollars available may reduce the overall scope of modernization from an “ultimate” option (as proposed in 2014) to an approach that successfully meets identified building deficiencies and programmatic needs within a minimized scope.

Irrespective of the final building vision resulting from revisiting program and departmental space needs, *ACM recognizes Project 1 as a College priority*. The building

has valuable remaining life but requires substantial modernization and renewal. The College *is committed to timely completion of all elements vital to the correction of critical structural and mechanical issues and removal of accessibility barriers.* To affirm our intent, **Project 1: "ADA Compliance, Roof and HVAC Replacement" is planned** to be in an **A&E design stage by end of FY16.** Estimated Start of Construction is optimally July 2017.

Interior renewal and reconfiguration of space to correct learning center deficits, and implement energy conservation measures planned under remaining stages, **have commitment for local dollars** but are currently unapproved and unfunded by the State of Maryland.

The College anticipates the total building renovation could span a cycle of 5 fiscal years.

Priority Two - Continuing Education Building

A. Analysis of Building Use and Condition

Offices for administrative and program staff along with classrooms, computer labs, registration facilities, the College Information Center, and the Community Based Transition Program are functions currently sharing the Continuing Education Building.

The center provides a student-learning environment for regional workforce programs, one of our most rapid student growth areas.

Through the Center, we deliver both open enrollment and contract-training courses in diverse areas. Offerings include concentrations in Professional, Workforce Development, Health & Human Services, Community Education, and Seniors. In addition, credit classes also meet in the building.

Public meetings and community events occur in the facility throughout the year, including job fairs, political forums, nonprofit organization meetings, school board activities and multi-agency sponsored events (Homeless Advocacy Day). Various employee meetings, trainings, and functions also utilize building classrooms.

Built 1977, the Continuing Education Building was designed as an all-purpose facility with classroom, office, and laboratory spaces. Since construction, the College executed several reconfigurations to create dedicated computer labs, a fiber optic Distance Learning classroom, and additional offices for administrative use, including the College call center.

Carpet and ceiling tile replacement freshened the building, but electro-mechanical systems are original and the *HVAC system will reach end of useful life within the next 3 years.* This deteriorating learning environment severely impacts our *goal of student success and continued learning.*

Significant deficiencies include:

- Accessibility barriers must be removed.
- Building roof is deteriorating; system failure is a threat.
- Building HVAC plants are significantly past end of useful life and obsolete. System failure is a threat.
- Inefficient thermal barriers permit waste of energy dollars.
- The absence of automated fire suppression system compromises public safety.
- Building electrical system may not support program expansion to meet learner needs.
- Interior finishes need renewal and space requires reconfiguration for efficiency in offices, classrooms, laboratories, and storage.

B. Proposed Renewal Program

After examining current and projected future needs, the building renewal project must provide for increased classroom and conference space, adaptable technology, and flexibility in use of space. To meet these needs, the College proposes general renovations for modernization, improved accessibility, and addition of 10,000 square feet of new construction space.

Major upgrades will include removal of existing barriers to program access and enhanced accessibility, replacement of obsolete HVAC and electro-mechanical systems, interior revitalization, and reconfiguration of offices areas. In particular, an open and visible Registration Office will enhance operations efficiency.

In addition, classrooms and training spaces will be equipped with smart room technology, adaptable to traditional lecture format and to the specific needs of customized training.

To facilitate recurring large trainings and events, the College proposes to construct a 10,000 square foot two-story addition along the rear façade of the existing building. Our concept for the addition includes one level in open conference space, changeable into smaller multipurpose training spaces. Classrooms would occupy the second level. Additional restrooms and offices would be included. Construction of a front entrance portico finishes the design.

Priority Three - Roofs

A. Analysis of Building Use and Condition

The Advancement & Bookstore structure is an institutional support and academic support facility. The Welding and

Automotive Laboratory building is an academic support facility. Roof surfaces on both structures were last renewed (or first constructed) in 1991 and have now *reached the end of a projected 25 year useful life cycle.*

The Allied Health Building is an academic support facility. The roof surface is original construction dating from 1995. The surface *will reach the end of a projected 25-year useful life cycle in 2020.*

B. Proposed Renewal Program

The College included replacement of these roof surfaces in the Table Eleven summary of prioritized capital projects.

Priority Four - Water Lines

A. Analysis of Use and Condition

Water lines are steel. Cathodic protection measures should be present on steel pipe-in-soil system. Anodes do not protect Willowbrook water distribution lines. Most unprotected steel systems fail at 40-50 years depending on soil acidity and dampness. Estimated remaining life for the unprotected steel pipe system is **0-5 years.**

Presently, a significant leak is suspected under the central plaza near the College Center. Water frequently invades the lower elevation of the elevator shaft and dampness appears in building landscaping.

The College estimates a daily loss to system-wide leaks of at least 5% of all water passing through the master meters. Over time, this represents a significant loss of dollars.

B. Proposed Renewal Program

An emergency need exists for the College to detect the source of water seeping into the lowest elevation of the College Center.

The College also recognizes a critical, short-term need exists for incremental planned replacement of steel water lines, which are believed to be corroding and producing multiple small leaks. A leak detection survey is planned. Staged replacement of the lines is included in the Table Eleven projects.

Prioritized Expansion Projects

Priority One - *Natural Gas Corridor*

A. Analysis of Use

The College's Physical Plant and Finance Departments identified the need for access to natural gas as part of a wider cost-savings program for all utilities consumed in operation of the campus. An ASHRAE Level II Energy Audit for campus facilities is contracted for completion within FY16.

The College anticipates an audit recommendation to convert to natural gas certain buildings currently using fuel oil and propane. This will include the prioritized **Technologies** and **Continuing Education** Buildings. Conversion will require construction of an on-campus gas distribution system.

B. Proposed Expansion Program

Natural gas was not present in the Willowbrook campus area until construction of the regional medical center adjacent to the campus. With a major distribution line now within 100 yards of the main entrance, the College is actively pursuing extension of service to the campus site.

Project 1 of the Technologies Building renovations will incorporate the ASHRAE recommendation as part of the replacement of the aged HVAC system. Conversion will

replace boilers now using more costly fossil fuels with high efficiency types.

Conversion of the Technologies Building system to natural gas requires installation of approximately 2400 linear feet of new flexible plastic gas pipeline from the supplier's proposed point-of-entry. To expedite gas line construction ahead of our internal budget process, construction cost will be assigned to the Technologies Building Project, if eligible. Ideally, construction should occur during FY17.

Concurrently, the College will convert heating equipment in the Continuing Education Building, which is in close proximity to the proposed point-of-entry. Supplying natural gas to the CE building requires installation of approximately 200 linear feet of flexible gas pipeline and retrofit to the present boiler.

Also, in tandem with the Technologies Building, the College will convert heat plant equipment in the adjacent Allied Health Building. This requires approximately 200 linear feet of pipeline.

The College will schedule conversion of other buildings using fossil fuels as funds are budgeted.

Priority Two - *Parking*

A. Analysis of Use

Earlier, Table Six identified a current deficit of 532 parking spaces based on 2006 criteria used by MHEC. The College predicts that deficit to **increase 150%** by target year 2023.

The College regularly receives complaints from students regarding lack of parking. *To meet our strategic goal of student success,*

parking needs are incorporated this 10-Year Plan. Presently, students and employees share 1360 parking spaces distributed through 3 main parking areas. All parking lots are within reasonable walking distance of campus buildings. There is no on-street parking available along either Old Willowbrook or Willowbrook Roads.

The largest parking lot serves the Phys Ed, Science and Humanities Buildings and campus outdoor recreation areas. Community residents enjoying on-campus events or facilities frequently fill student and employee spaces because the number and location of *visitor spaces is deficient*. When full, students seek other parking, with many of these migrating into the congested lots near the Tech and Allied Health buildings.

The most significant factor in the parking issue evolves directly from the distinction of *accommodating more daytime, full-time students than the general norm for a community college*. This specific student population creates congested parking lots campus-wide beginning with the 8:00 a.m. start of classes and diminishing only in mid-afternoon hours prior to the start of traditional evening class times.

B. Proposed Expansion Program

The College proposes mitigating the parking deficit using an approach that combines new administrative policies with new construction. The northeastern campus sector is an identified "*congested area*." Expansion of the existing gravel lot is possible and feasible. Construction in the next 24 months could enlarge the present gravel lot 25-30 additional spaces, without impacting any other facilities.

Other suitable sites are scattered campus wide, but outside funding is required for

grading and paving if a new 100 space lot is to be developed. Until that can occur, future construction can be supplemented with administrative policies, as suggested previously in the qualitative discussion of vehicular circulation and parking.

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Somerset County Campus

6022 Glades Pike, Suite 100 • Somerset, PA 15501-4300
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Bedford County Technical Center

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School of Hospitality Management and Culinary Arts

The Culinaire Café / Gateway Center
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