

4



ROCKVILLE CAMPUS

4.1 CAMPUS BACKGROUND INFORMATION

4.1.1 Introduction

As the largest and most comprehensive campus of Montgomery College, the Rockville Campus welcomes close to 17,000 students each semester. Accessible by all modes of transportation and located about a mile from the vibrant Rockville Town Center, the Campus opened in 1965 with an enrollment of 2,489. In addition to the credit students, the Campus also serves a substantial non-credit student body through programs of Work Force Development & Continuing Education (WD&CE). The student body, faculty and staff and a broad range of campus partners come together to form a vibrant and culturally diverse community. The Campus hosts thousands of visitors each year for art exhibits, concerts and theatrical events, athletic events, conferences and lectures, and other events open to the public and takes great pride in serving as a long standing community resource.

4.1.2 Institutional Characteristics

The Rockville Campus has the largest enrollment of the College's three campuses and is almost double the student body of Germantown and Takoma Park/Silver Spring. The Campus sits on approximately 86 acres and has a physical plant of almost one million square feet of space.

The Rockville Campus is racially diverse with nonwhites comprising 70.8% of the student body. The mean age of a Campus student is 24.9 years with traditional age students (18-20 years of age) still leading all age groups by comprising 37.9% of the total student body. Approximately 92% of all students reside in Montgomery County, and the female enrollment is 50.3%. Figures 4.01 and 4.02 provide an overview and snapshot of the Campus student body as it relates to Enrollment Status and Day and Evening Students.

The instructional divisions are extended and supported by the Student Development Division, with the Office of the Vice President and Provost providing campus leadership and management. In addition to these units, the Rockville Campus is home to the Paul Peck Humanities Institute, the Gordon and Marilyn Macklin Business Institute, and the Arts Institute, each with special programs for the College and outreach to the community. The Robert E. Parilla Performing Arts Center not only supports the College's academic theatre and dance programs but also serves as a community resource for professional productions by local and national arts organizations. The Campus' intercollegiate athletic program sponsors teams in men's and women's basketball, cross country, indoor and outdoor track, soccer and women's softball and volleyball. Campus-based central administration services include the library, information technology support, admissions and registration, financial aid, cashiering, physical plant, and auxiliary services, book store, and food services.

FIGURE 4.01
ROCKVILLE CAMPUS ENROLLMENT STATUS, FALL 2013

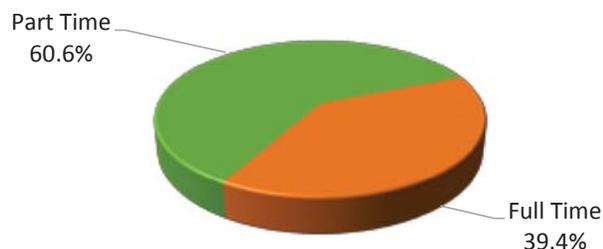
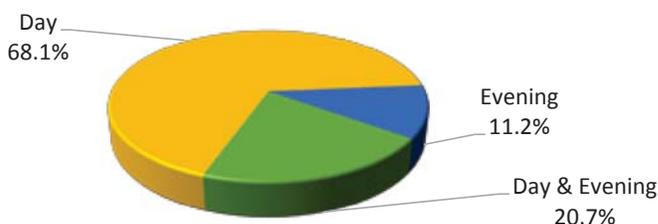


FIGURE 4.02
ROCKVILLE CAMPUS DAY AND EVENING STUDENTS, FALL 2013



4.1.3 Comparison with 2006-16 FMP

Similar to the 2006-16 Facilities Master Plan, this 2013-23 Facilities Master Plan also calls for continuing the strong emphasis on outdoor space with a central green mall and proposes another large parking structure at the south side of campus.

The 2006-16 Facilities Master Plan described a projected space deficit in 2016 of 414,121 NASF, and proposed to meet that deficit by construction of ten new buildings and eight building renovations. New projects included buildings for Student Services, Humanities and Social Sciences, Art (two), Library, Technical Training, and Facilities building. To accommodate the projected enrollment growth as well as the loss of parking spaces to new construction, two new parking garages were proposed at the north and south sides of campus. Renovations were proposed for the Robert E. Parilla Performing Arts Center, which was also slated to receive an addition, the South Campus Instruction Building, Physical Education Center, Campus Center, Humanities Building, Gordon and Marilyn Macklin Tower and the Computer Science Building.

Since the 2006-16 Facilities Master Plan was approved, several projects have been completed or are in progress at the Rockville campus. These include completion of the Science Center and renovation of the Science East building for use as the Math Center. The Science West Building is currently under renovation as the second phase of the Math Center. The Garage North project (now North Garage) is under construction, and the New Student Services Center is currently in design. Also well underway is the green pedestrian mall that was started during construction of the Science Center and will be extended with construction of the new Student Services Center.

This 2013-23 Facilities Master Plan describes a slightly larger space deficit in 2023 of 439,764 NASF. The space deficit is proposed to be met by construction of six new buildings and five building renovations – a new Campus Center, Library Learning Commons, Technical Training Center, Media Arts Building, Humanities and Social Science Center, and a second parking garage for the campus. Renovations are proposed for the South Campus Instruction Building to accommodate Workforce Development & Continuing Education, the Humanities Building, Computer Science Building, Physical Education Center, Gordon and Marilyn Macklin Tower and the Mannakee Building. The Robert E. Parilla Performing Arts Center will be renovated and receive an addition. Continuation of the green pedestrian mall and recommendations for pedestrian circulation and open space improvements are also proposed in the 2013-23 Facilities Master Plan.

4.1.4 Academic Programs

Montgomery College is authorized by the Maryland Higher Education Commission to offer five degrees: the Associate of Arts (A.A.), the Associate of Science (A.S.), the Associate of Arts in Teaching (A.A.T.), the Associate of Fine Arts (A.F.A.) for students wanting to transfer to baccalaureate programs and the Associate of Applied Science (A.A.S.) for those seeking immediate employment. The College also awards certificates (Cert) that focus on the development of technical skills, as well as letters of recognition (L of R) for non-degree seeking students who satisfactorily complete certain courses that teach focused skills and competencies.

In addition to General Education, student development, and honors courses, the Rockville Campus offers 80 different degree programs, 51 certificate programs, and 15 letter of recognition programs. The Rockville Campus offers the highest number of academic programs offered at the College. Academic programs uniquely offered at the Rockville Campus are related to the fine and performing arts, with two A.A.S degrees and two certificates in Graphic Design, the A.A. degree in Dance, the A.A. degree and certificate in Music, the A.A.S. degree and five certificates in Photography, two A.A. degrees in Theatre, and two A.A.S. degrees and four certificates in Communication and Broadcasting Technology; technical education, including two A.A.S. degrees and two

certificates in Architecture and Construction Technology, the A.A.S degrees and four certificates in Automotive Technology, the A.A.S. degree, two certificate, and four letter of recognition programs in Building Trades Technology, the A.A.S. degree and certificate in Fire Science, the A.A. and A.A.S. degrees and two certificates in Interior Design, and the A.A.S. degree and two certificates in Computer Publishing and Printing Management; and management, including the A.A.S. degree in Hospitality Management, three certificate, three letter of recognition programs. Other programs only offered at the Rockville campus include the A.A.S. degree in Criminal Justice, the A.A.S. degree and two certificates in Applied Geography, and the four A.A. degrees and certificate in Health and Physical Education. In addition, the A.A.S. degree in Fire Science and Fire Service Management and the certificate program in Fire and Arson Investigation are approved as State wide programs. These State wide programs are available to students from other geographic areas where the local community college does not offer the same program. The College's Center for Teaching and Learning also finds its primary home on the Rockville Campus. Not included here are the programs offered by WDCE.

Educational programs at the Rockville Campus are projected to generate 117,842 student credit hours (SCH) in 2023, an increase of 17% over fall 2013 and with 97% being taught during the day. Delivery of programs is expected to change over the next decade. Distance learning alternatives will be more available as options, including both entire and partial course delivery. Although this instructional delivery method will provide more options to students it is projected to continue to account for only 3% of the total SCH. Table 4.02 provides a summary of contact and credit hours for the Campus and the College for 2013 and 2023 and Table 4.03 provides a summary of credit hours by division from 2010-2013 and projected for 2023.

The College has also made significant and substantial investments in its classroom environments to incorporate smart instructional technology and to provide and support technology-based learning centers. To complement these improvements the College must also prepare to address other changes in pedagogy, including increased instructional use of specialized learning environments and a continued emphasis on collaborative and group learning.

4.1.5 Enrollment Projections

Over the past five-year period, headcount enrollment has increased 4%, from 15,816 students in 2008 to 16,441 in 2013. Over this same period, however, the average student credit hour load has decreased from 8.2 credits to 7.9 credits, while during the same period the FTE student enrollments have increased by 14%. Both statistics are projected to continue on the same trend with total headcount planned to increase by 27% to 20,819 and credit load to decrease to 7.3 at Rockville through 2023. Table 4.04 provides a summary of the historical, current and projected headcount and the corresponding Full Time Equivalent (FTE) student calculation for the Campus.

TABLE 4.01
 ROCKVILLE CAMPUS ACADEMIC PROGRAMS (By Credential and Campus) 2015-2016

Program Area	AA	AS	AAT	AFA	AAS	Cert	L of R
Accounting						1GR	
American Sign Language	1R					1R	
Applied Geography					1R	2R	
Architectural & Construction Tech					2R	1R	1R
Art	2GRT			1GRT			
Automotive Technology					1R	4R	
Biotechnology					1G	2G	
Broadcast Media Production					2R	4R	
Building Trades Technology					3R	4R	4R
Business	1GRT						
Communication Studies	1GRT						
Computer Application					2GRT	2GRT	
Computer Gaming & Simulation	3 GRT						
Comp Publishing & Printing Mgmt							1GRT
Computer Science & Technologies	2GRT					1GRT	
Criminal Justice					1R		
Cybersecurity					1G	2G	
Diagnostic Medical Sonography					1T		
Digital Media and Web Technology					1GRT		
Education			7GRT		1R	1GRT	
Emergency Preparedness Management		1RT				1RT	
Engineering Science					12GRT		
Ethnic Social Studies						1GRT	1GRT
Fire Science & Emergency Services					3RT	4R/1T	1RT
General Studies	4GRT						
Graphic Design	4R/2GT			1GRT		3R/2GT	
Health Enhancement, Ex Sci & PE	3R					1R	2R/1GT
Health Information Management					1T		1T
Hospitality Management					3R	3R	3R
Interior Design	1R				2R	3R	
International Studies	1GRT						
Landscape Technology					1G	1G	
Management						1GRT	1GRT
Mental Health Associate					1T		
Music	1R					1R	
Network & Wireless Technologies					1GRT	3G	
Nursing		1T					

Paralegal Studies					1GT	1GT	1GT
Photography					1R	4R	1GRT
Physical Therapist Assistant					1T		
Polysomnography						1T	
Radiologic (X-Ray) Technology					1T		
Science				5GRT			
Surgical Technology					1T		
Technical Writing						1G	
Theatre		3R					
Transfer Studies						1GRT	
Web Careers						5R/3GT	
Women's Studies						1GRT	

Degrees, Certificates, and Letters of Recognition: AA-Associates of Arts; AS-Associate of Science; AAS-Associates of Applied Science; AAT-Associates of Arts in Teaching; AFA-Associate of Fine Arts; Cert-Certificate; and L of R-Letter of Recognition.

Campus: T-Takoma Park/Silver Spring Campus; R-Rockville Campus; and G-Germantown Campus.

Source: Montgomery College

TABLE 4.02 ROCKVILLE CAMPUS CREDIT AND CONTACT HOURS, FALL 2013 AND 2023

Day, On-Line, and Total Credit Hours													
	2013 Day SCH	2013 On-Line SCH	2013 Total SCH	2013 % Day SCH	2013 % On-Line SCH	2023 Day SCH	10 yr % Chg	2023 On-Line SCH	10 yr % Chg	2023 Total SCH	10 yr % Chg	2023 % Day SCH	2023 % On-Line SCH
Rockville	98,062	2,658	100,720	97%	3%	114,733	17%	3,110	17%	117,842	17%	97%	3%
Collegewide	167,123	11,465	178,588	94%	6%	210,241	26%	14,423	26%	224,664	26%	94%	6%
Day Contact Hour (WSCH) to Day Credit Hour (SCH) Ratio													
	2013 WSCH	2013 SCH	2013 WSCH / SCH	2023 WSCH	10 yr % Chg	2023 SCH	10 yr % Chg	2023 WSCH / SCH	10 yr % Chg				
Rockville	149,298	100,720	1.48	162,803	9%	117,842	17%	1.38	-7%				
Collegewide	260,704	178,588	1.46	314,515	21%	224,664	26%	1.40	-4%				
Day Lecture and Lab Contact Hour													
	2013 Day Lecture WSCH	2013 Day Lab WSCH	2013 Day Total WSCH	2013 Day % Lab WSCH	2023 Day Lecture WSCH	10 yr % Chg	2023 Day Lab WSCH	10 yr % Chg	2023 Day Total WSCH	10 yr % Chg	2023 Day % Lab WSCH		
Rockville	92,283	57,015	149,298	38%	97,635	6%	65,168	14%	162,803	9%	40%		
Collegewide	161,296	99,408	260,704	38%	192,569	19%	121,946	23%	314,515	21%	39%		

Source: Montgomery College

TABLE 4.03 ROCKVILLE CAMPUS CREDIT HOURS BY DIVISION , FALL 2010-2013 AND 2023

	2010	2011	2012	2013	5yr % Chg	2023	10 yr % Chg
Student Dev	1,340	1,270	1,178	1,057	-21%	1,237	17%
Honors	95	75	71	47	-51%	55	17%
BMIS	13,683	13,457	13,341	11,828	-14%	13,839	17%
FPA	30,114	31,383	30,825	28,229	-6%	33,028	17%
H	43,721	45,739	44,943	41,573	-5%	48,640	17%
SEM	37,129	37,202	38,280	37,432	1%	43,795	17%
SHHPE	5,306	5,501	5,673	5,736	8%	6,711	17%
GITE	5,148	5,477	5,015	4,728	-8%	5,532	17%
Rockville	136,536	140,104	139,326	130,630	-4%	152,837	17%

Source: Montgomery College

TABLE 4.04 ROCKVILLE CAMPUS ENROLLMENT STATISTICS, FALL 2008-2013 AND 2023

	2008	2009	2010	2011	2012	2013	5yr % Chg	2023	10yr % Chg
Headcount	15,816	17,028	16,682	17,292	17,495	16,441	4%	20,819	27%
FTE Students	8,410	8,864	10,375	10,098	9,288	9,602	14%	12,645	32%

Source: Montgomery College Office of Institutional Research, 2015.

4.1.6 Faculty and Staff

Faculty FTE's supporting the Campus are planned to increase by 12%, from 401 FTE faculty to 449 through 2023. The number of full-time faculty will increase by 25 positions, or 9%, while the number of part-time faculty will increase by 92 positions, or 17%. Growth in faculty positions is evenly distributed across instructional divisions with very modest growth in Student Development. The planned part-time faculty growth will continue to add to the existing space deficit in office and conference space for part time faculty, if not addressed. Table 4.05 provides a summary of current and projected faculty by division for 2013 and 2023.

The College expects its overall numbers of full-time, part-time, and FTE staff to increase from 2013 to 2023 resulting in an FTE staff increase of 2% during the planning period. This increase is projected to include an additional 73 full-time staff or a 9% increase and 14 part-time staff, which is a 26% increase. Table 4.06 provides a summary of current and projected staff for 2013 and 2023.

TABLE 4.05 ROCKVILLE CAMPUS FACULTY POSITIONS BY DIVISION, 2013 AND 2023

	2013 FT	2013 PT	2013 FTE	2023 FT	10 Yr # % Chg	2023 PT	10 Yr # % Chg	2023 FTE	10 Yr # % Chg
Student Dev	0	24	6	0	0	28	4	7	1
					0%		17%		17%
BMIS	24	40	34	26	2	47	7	38	4
					8%		18%		11%
FPA	75	126	107	82	7	148	22	119	13
					9%		17%		12%
H	69	156	108	75	6	183	27	121	13
					9%		17%		12%
SEM	67	137	101	74	7	161	24	114	13
					10%		18%		13%
SHHPE	15	25	21	16	1	29	4	23	2
					7%		16%		9%
GITE	18	24	24	20	2	28	4	27	3
					11%		17%		13%
Rockville	268	532	401	293	25	624	92	449	48
					9%		17%		12%

Source: Montgomery College

TABLE 4.06 ROCKVILLE CAMPUS STAFF POSITIONS, 2013 AND 2023

	2013 FT	2013 PT	2013 FTE	2023 FT	10 Yr # % Chg	2023 PT	10 Yr # % Chg	2023 FTE	10 Yr # % Chg
Administrative	62	1	62	74	12	1	0	74	0
					19%		0%		0%
Other Professional	237	14	241	255	18	19	5	260	5
					8%		36%		2%
Clerical and Secretarial	191	20	196	208	17	24	4	214	6
					9%		20%		3%
Technical and Paraprofessional	218	15	222	233	15	18	3	238	5
					7%		20%		2%
Skilled Crafts	30	0	30	32	2	0	0	32	0
					7%		0%		0%
Service and Maintenance	114	3	115	123	9	5	2	124	1
					8%		67%		1%
Rockville	852	53	865	925	73	67	14	942	17
					9%		26%		2%

Source: Montgomery College

4.2 EXISTING SITE CONDITIONS and ANALYSIS

4.2.1 Context and Setting

Context

The Rockville Campus is the largest and most centrally located of the three Montgomery College campuses. It is located in a suburban setting north of the city center of Rockville, between the Rockville and Shady Grove Metro stations.

Although situated just off and accessed from MD 355/Hungerford Drive, the Campus has little frontage on this major thoroughfare. Along its southern edge, across Mannakee Street, the Campus faces a large property owned by the Montgomery County Public School system, the Carver Educational Services Center (CESC) which offers potential future expansion space for the Campus. Further west along Mannakee Street is the residential neighborhood of Anderson Park, primarily consisting of single-family homes. Directly north of the Campus is the College Gardens apartment complex. The eastern edge of the Campus is bordered by residential scale office buildings fronting MD 355. The Williams Companies owns the property adjacent to the northeast corner of the campus, with utilities easements running across the northern side of the Campus. (See Figure 4.04 Campus Setting).

The Campus is characterized by a relatively dense core of low-rise buildings that were constructed in the 1960s and 70s. They are consistent in character and appearance; most are clad in a sand-colored brick. The spaces between buildings are pleasant in scale although disjointed in appearance and use. Signage is minimal and not well coordinated. These core buildings and open spaces project an image of a campus that is utilitarian and outdated.

A handful of newer and/or comprehensively renovated buildings has recently been completed at the southwest corner of the Campus and is in progress at the north edge of the Campus. At the southwest corner, the Science Center and its renovated wing (formerly Science East) and the renovated Science West Building are generally larger in scale than the core buildings and utilize a wider variety of architectural materials, including varying shades of brick, metal panels and generous windows. On the north side of campus, the North Garage is under construction; this will be a seven-level structure when complete. Adjacent to the North Garage, the new Student Services Center is in design and is anticipated to be four stories tall.

A few buildings are located just outside the campus core – including the Robert E. Parilla Performing Arts Center and the South Campus Instruction Building. At the far northeast corner of the Campus along MD 355 are the Homer S. Gudelsky Institute for Technical Education and the Interim Technical Training Center. The Mannakee Building occupies the southeast corner of campus. These three buildings have a different architectural character from the core of campus, utilizing more brick and generally darker colors.

Large parking lots surround the campus core on three sides, with minimal landscape screening. The extensive parking lots convey an image of a commuter campus.

4.2.2 Gateways and Views

Although fronting along a major thoroughfare in Rockville, MD 355 (Hungerford Drive), the campus is barely visible from that street. It is slightly more visible from Mannakee Street but mostly concealed behind a fairly dense tree stand. There are no major gateways to the campus and gateway signage is minimal; however, the College has been studying design proposals for gateway signage at all its campuses, and has plans for installing signage in three locations on the Rockville Campus. (See Figure 4.05 Gateways and Views).

FIGURE 4.03 CAMPUS CONTEXT

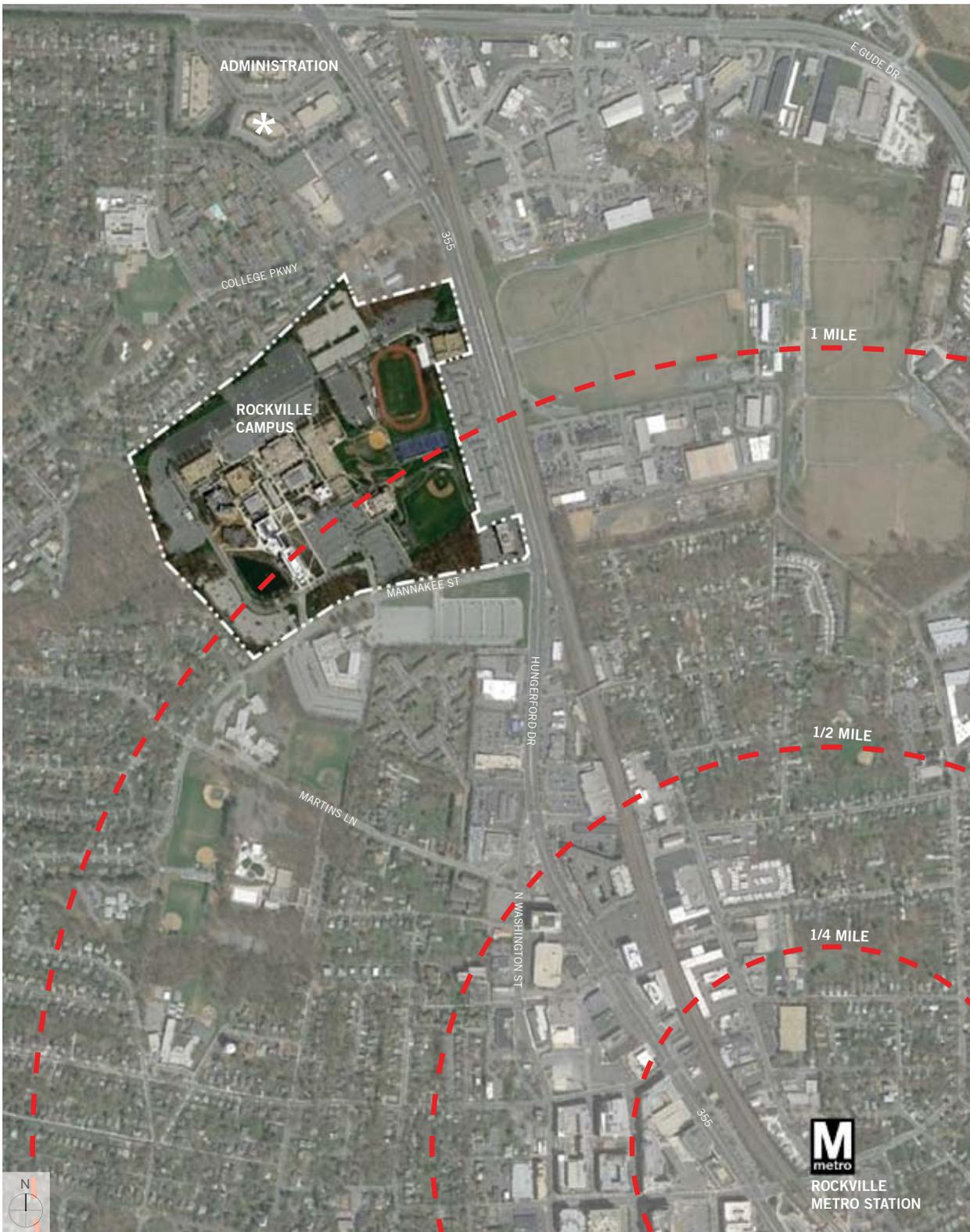


Image Not to Scale

For cars, the major entrances to campus are one driveway off MD 355 and two driveways off Mannakee Street. Both these entrances open to and give views toward large parking lots. The arrival experience by foot or public transit generally requires traversing the wide and extensive parking lots in order to reach the core of the Campus.

Views into the Campus proper from the perimeter parking lots is slowly developing into a more “collegiate” appearance. With the recent construction of the Science Center and its renovated wing (formerly Science East) and the renovation and enlargement of Science West Building, the southern end of campus has increased in density and scale. Views along North Campus Drive toward the campus interior are in the process of changing as well with the larger scale new Student Services building due to start construction in 2016 and the construction of the seven-level North Garage already underway.

4.2.3 Open Space

The Campus is organized in a loose grid of buildings, with the open spaces between buildings being primarily linear in character. The major exceptions to these are a large landscaped amphitheater just east of the Humanities building at the north side of the Campus and a small landscaped plaza with fountain between the Theatre Arts Building and existing Student Services buildings. Many of the linear spaces between buildings seem “left over” and are haphazardly landscaped and furnished. A strong, landscaped north-south axis has begun to be implemented at the south edge of the Campus, adjacent to the Science Center. It is currently interrupted by the existing one-story Student Services building; however, this building will be demolished as part of the new Student Services building construction, and the north-south axis will be further landscaped and extend all the way to the north edge of the Campus, past the amphitheater and culminating in a new plaza to be built alongside the new Student Services Building. The north-south axis will incorporate the small plaza outside the Theatre Arts Building building.

While the campus slopes gradually upward from south to north, there are significant grade changes in some locations such that accessibility between some buildings on the west side of the Campus is achieved via exterior bridges, with interior vertical circulation.

Additional green open space exists in the form of wooded parcels along the southern edge of the Campus along Mannakee Street and at the stormwater pond, which fronts a landscaped area at the west side of the Science Center. The woods form a visual barrier along the south edge of the Campus. There are also groupings of mature oak trees surrounding the Gordon and Marilyn Macklin Tower on the west end of the Campus. (See Figure 4.06 Open Space and Streetscape.)

4.2.4 Pedestrian and Bicycle Circulation

Pedestrian Circulation

The Rockville Campus is a very walkable campus. See Figure 4.07. Most buildings are within a ¼ mile radius walking circle, or about a 10-minute walk, which is considered walkable by most people. Two areas of campus fall outside the ¼ -mile radius - the Homer S. Gudelsky Institute for Technical Education (GU) and the adjacent Interim Technical Training Center (TT), and the Mannakee Building.

The east-west walking route through the center of campus (between the Humanities Building and the Computer Science Building, and between the Campus Center and the Theatre Arts Building) is congested during peak class times. This space is poorly defined and, especially to the east, broken into separate sections with stairs and ramps. The main pedestrian connections should be improved.

There is a worn path, but no sidewalk, connecting the southwest corner of the Mannakee Building parking lot with the sidewalk along Mannakee Street. There is no sidewalk along the east side of the eastern campus entrance from Mannakee Street. There is no sidewalk on the south side of the central portion of North Campus

FIGURE 4.04 CAMPUS SETTING



Drive. This sidewalk is planned to be completed as part of the North Garage project and the subsequent new Student Services Building project.

There is no sidewalk along the parking lot sides of North Campus Drive or West Campus Drive, and none is planned. Therefore pedestrians tend to cross Campus Drive wherever they emerge from the parking lots. Pedestrian/vehicular conflicts are focused in areas where pedestrians are crossing from parking lots outside the Campus Drive loop into campus. Speeding is a concern on Campus Drive.

Pedestrians crossing Mannakee Street to and from student Lot 13 posed a particular safety concern until 2016. However Lot 13 will no longer be available to the College for parking after the summer of 2016. The pedestrian crosswalk and warning flasher installed at the Mannakee Street pedestrian crossing by the College and the City of Rockville should be reexamined to determine whether they are still warranted.

Pedestrian safety is a concern at the crossing of South Campus Drive to the bus stop. This is detailed further in the Transit section.

Bicycle Circulation

The Rockville Campus is situated along the City of Rockville's bikeway path along Mannakee Street. Campus bicycle circulation is provided on Campus roads and perimeter sidewalks. However, due to the high level of vehicular traffic on the Campus and significant amount of pedestrian activity, the potential for conflict among the various modes of movement is high and limited space constrains the College's opportunity for providing dedicated bike pathways. Shared road signage ("sharrows") may be added to increase awareness of bicycle use at the campus roads.

As part of its goal to increase sustainability on the Campus, the College encourages bicycle transportation by providing bicycle racks at several locations on Campus. Quality stainless steel bike racks that allow two points of contact for locking are provided at a number of buildings. The only bike rack location that was observed to be more than half full was at the Science Center. During the late morning, all other locations had one or no bikes.

A Capital Bike Share Station with 21 docks is located at West Campus Drive east of Lot 10. According to data provided by Capital Bike Share, the Rockville Campus Bike Share station averaged 12 rides per week (total inbound and outbound) for the 38 weeks of available data in January-September 2015. The station ridership has remained the same compared with 2014. The asphalt sidewalk leading to the station is in need of replacement, regrading, and widening. The surrounding Rockville/Shady Grove/Life Sciences Center area has 20 other bike share stations including at Rockville and Shady Grove Metrorail stations.

Fences on the north and west perimeters of campus prevent bicycle access from local streets. A gate in the fence at Princeton Place was permanently closed in response to neighbors' concerns.

Bicycle racks and storage space will be incorporated into the new North Garage.

4.2.5 Vehicular Circulation and Parking

The Rockville Campus is bounded by a major arterial, MD 355 (Hungerford Drive) to the east, and a "primary" residential street, Mannakee Street, to the south. Direct access to the Campus is provided via a signalized entranceway intersection along Hungerford Drive at North Campus Drive and two unsignalized entranceway intersections along Mannakee Street at South Campus Drive. The eastern intersection of South Campus Drive and Mannakee Street is controlled with Stop signs on all approaches.

The intersection of South Campus Drive and the west entrance from Mannakee Street is poorly aligned, creating a very wide intersection. As a result, crosswalks are longer than necessary and both drivers and pedestrians have

FIGURE 4.05 GATEWAYS AND VIEWS



- TREES
- RESIDUAL OPEN SPACE
- PLAYING FIELD
- EXISTING CAMPUS BUILDINGS
- IN DESIGN OR CONSTRUCTION
- CAMPUS BOUNDARY

- CAMPUS GATEWAYS
- CAMPUS VIEWS
- GATEWAY SIGNAGE
- ACTIVATED SPACE
- WATER FEATURE

- AR Paul Peck Art Building
- AT Amphitheatre
- CB Counseling and Advising Building
- CC Campus Center
- CH Child Care Center
- CS Computer Science Building
- GU Homer S. Gudelsky Institute for Technical Education
- HU Humanities Building
- MK Mannakee Building
- MT Gordon and Marilyn Macklin Tower
- MU Music Building
- nSV New Student Services Building
- NG North Garage
- PA Robert E. Parilla Performing Arts Center
- PE Physical Education Center
- SB South Campus Instruction Building
- SC Science Center
- SW Science West Building
- TA Theatre Arts Building
- TC Technical Center
- TT Interim Technical Training Center

trouble understanding what the other will do. There is an opportunity to reshape this intersection so it is more comfortable for all travelers.

Mannakee Street (from the west) offers a connection to the I-270/MD 28 Interchange to the southwest, via Nelson Street. This two-way “cut-through” traffic along Mannakee Street has been identified as a key concern in the City of Rockville’s Comprehensive Plan (January 2002), as well as a concern of local residents.

Traffic counts conducted in 2014 and illustrated on Table 4.07 indicate that the largest volume of a.m. and p.m. peak hour traffic enters and exits the Campus from MD 355 at its intersection with North Campus Drive. During the peak a.m. hour a total of 1,303 vehicles enter the Campus while the peak outbound period (midday) surveyed some 958 exiting vehicle trips. Traffic studies have also shown that the two major intersections along MD 355 which are used to funnel drivers onto the Campus are still operating acceptably, despite the perception by some that the wait times at these intersections are too long.

TABLE 4.07 ROCKVILLE CAMPUS INBOUND AND OUTBOUND PEAK HOUR TRAFFIC VOLUMES

Intersection	AM		MIDDAY		PM	
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
MD 355/North Campus Drive	504	165	391	629	267	316
Mannakee St/S Campus Drive East	324	167	198	216	165	161
Mannakee St/S Campus Drive West	475	138	369	312	276	243
Total	1,303	470	958	1,157	708	720

Inside the Campus is a U-shaped ring road, Campus Drive, which serves the main parking lots on the north, west and south sides of campus. Minor internal vehicular circulation deficiencies include over-long wait times to exit campus from North Campus Drive onto MD 355/Hungerford Drive in the afternoons and circulation of vehicles “searching” for more convenient parking space increases traffic volumes along Campus Drive and within surface lots. (See Figure 4.08 Parking and Vehicular Circulation).

Mode Share

A survey of students and faculty/staff taken in March 2015 for the College Town Plan obtained information on commuting mode share. The faculty/staff commute by driving is 85%. Information for student mode share and overall mode share to Rockville campus is shown in Table 4.08. Ten percent of student trips are comprised of auto drop off and pickup. A convenient drop off location is needed on the campus.

TABLE 4.08 ROCKVILLE CAMPUS STUDENT AND TOTAL MODE SHARE

	Drove	Dropped	Carpool	Transit	Walk	Bike	Other
Students	42%	10%	5%	39%	3%	1%	-
Overall	65%	-	3%	28%	1%	1%	2%

Source: Montgomery College, College Town Plan

FIGURE 4.06 OPEN SPACE AND STREETScape



- TREES
- TREE STAND
- STORMWATER POND
- EXISTING CAMPUS BUILDINGS

- IN DESIGN OR CONSTRUCTION
- CAMPUS BOUNDARY

- AR Paul Peck Art Building
- AT Amphitheatre
- CB Counseling and Advising Building
- CC Campus Center
- CH Child Care Center
- CS Computer Science Building
- GU Homer S. Gudelsky Institute for Technical Education
- HU Humanities Building
- MK Mannakee Building
- MT Gordon and Marilyn Macklin Tower
- MU Music Building
- nSV New Student Services Building
- NG North Garage
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Parking

The current parking capacity on the Rockville Campus for purposes of this FMP is the supply in effect after completion of two scheduled building projects: the North Garage and the new Student Services Center. The current parking capacity also assumes the loss of surface Lot 13, a 407-space leased overflow lot across Mannakee Street. The total parking capacity is 3,794 spaces.

Montgomery College’s annual September survey of parking activity in 2014 counted a peak of 3,134 vehicles in what was then a total parking supply of 3,491 spaces, a parking utilization rate of 90% overall. Occupancy of faculty/staff spaces was 82%. However, student parking in the loop road lots was close to 100% full, and most available student spaces were in remote Lot 13.

Parking utilization greater than 95% is a major issue, as it does not allow for efficient vehicle access, circulation and overall quality of service, whereby a parker is not required to search for the last available space. Best planning and design practice suggests that an operational surplus of 5-10% above peak utilization is required for operational efficiency and safe circulation and turnover. Supplying adequate parking for commuting students, faculty and staff is a major concern for the Rockville campus, and one which may restrict future growth.

The Maryland Higher Education Commission (MHEC) guidelines for community college parking require 0.75 space for each FTDE student and 0.75 space per FT faculty and FT Staff. In addition, visitor parking in the amount of 2% of the total student/faculty/staff spaces is required. Finally, the Americans with Disabilities Act (ADA) requires reserved accessible spaces in the amount of 20 for the first 1,000 spaces plus one space for each 100 spaces over 1,000.

Using MHEC standards, the total required number of spaces for existing conditions would be 6,061. Based on the parking survey conducted in 2014 when a peak of 3,134 parked vehicles was counted, it is clear that there is not as large a deficit as the state standards would suggest. The actual existing condition with a 3,794-space parking supply is a surplus of 162 spaces. The main reason for the difference is the high percentage of students that arrive via non-auto modes.

It is most important to use a realistic parking space requirement for students because they are by far the largest part of the campus population, with six Full Time Day Equivalent (FTDE) students for each Full Time (FT) Faculty and staff member. In addition, the number of FTDE students is expected to increase by 28% by 2023, whereas FT faculty and staff will increase by 6%.

Based on actual counts from the 2014 parking survey, peak student parking demand is accommodated with 95% of student spaces occupied by using a modified ratio of 0.40 for student spaces. This ratio is consistent with the current student driving mode share of 42% at Rockville. Using an alternative student parking ratio of 0.40 prevents an overestimation of parking deficit. Building an oversupply of parking would encourage more driving and discourage use of transit.

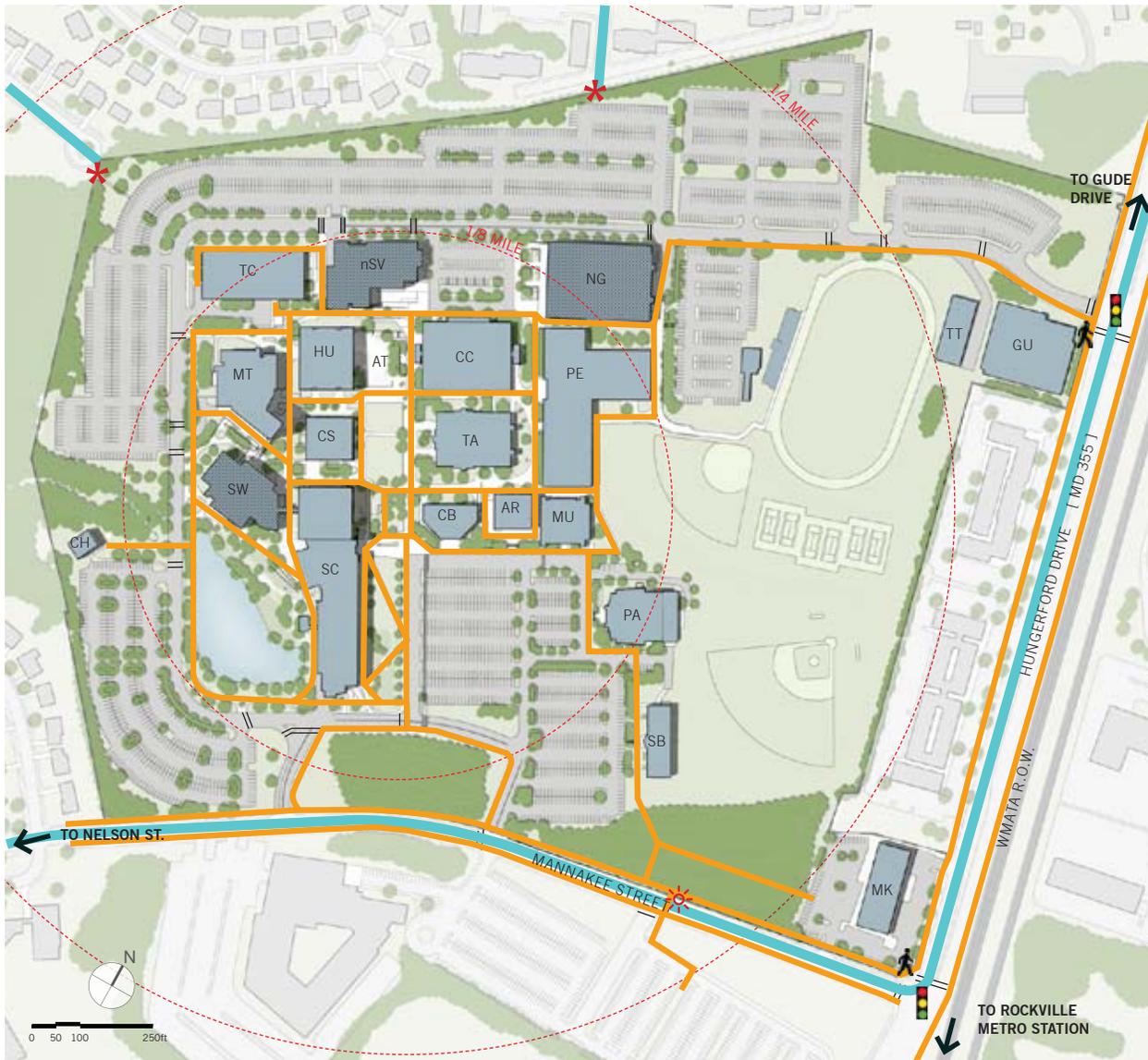
By using modified MHEC standards of 0.75 space per FT Faculty and FT Staff coupled with a parking ratio of 0.40 for FTDE students, the estimated space deficit in 2023 is reduced to 674 spaces. This information is summarized in Table 4.09.

TABLE 4.09 ROCKVILLE CAMPUS PARKING NEEDS 2023

Parking Supply 2013	Parking Deficit 2023 using MHEC standards	Parking Deficit 2023 using modified MHEC standards
3,794	3,782	674

Source: Montgomery College and WRA Associates.

FIGURE 4.07 PEDESTRIAN AND BIKE CIRCULATION



- PEDESTRIAN WALKING ROUTES
- - - PEDESTRIAN WALKING RADIUS
- PROPOSED SHARED-USE BIKEWAY
- CAMPUS BOUNDARY
- CROSSWALK
- PEDESTRIAN WARNING FLASHER
- EXISTING CAMPUS BUILDINGS
- IN DESIGN OR CONSTRUCTION
- PEDESTRIAN SIGNAL
- CLOSED ACCESS GATE
- TRAFFIC SIGNAL

AR	Paul Peck Art Building
AT	Amphitheatre
CB	Counseling and Advising Building
CC	Campus Center
CH	Child Care Center
CS	Computer Science Building
GU	Homer S. Gudelsky Institute for Technical Education
HU	Humanities Building
MK	Mannakee Building
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PE	Physical Education Center
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SC	Science Center
SW	Science West Building
TA	Theatre Arts Building
TC	Technical Center
TT	Interim Technical Training Center

4.2.6 Transit

The Campus is served by public transportation both on and off-campus. These services include a Washington Metropolitan Area Transit Authority (WMATA) Metrobus Q route and Montgomery County Ride-On bus routes 46 and 55 that provide connections to the Shady Grove and Rockville stations on the WMATA Red Line. Bus stops and shelters are provided on the Campus for these transit systems. Table 4.10 presents the peak frequency, average weekday riders and the percentage of the routes users that utilize the Montgomery College Pass.

A survey of travel mode characteristics for the campus suggests there is significant potential to increase public transit utilization as auto utilization is relatively high and faculty, staff, and students' trip origins are quite concentrated. At present, almost 50% of students and 85% of faculty/staff either drive and park a vehicle on the Campus or arrive as a passenger in a vehicle that is parked. An origin and destination survey that was completed in the Fall of 2007, noting the residential zip code of faculty/staff and student respondents respectively, shows the concentration of residential origins. This presents an opportunity for the College and local transit agencies to "target market" alternative public transit incentives and/ or single auto occupant disincentives. Though the campus is not located close enough to a Metro station that a student could walk, public bus routes and services are well positioned to meet both Metro rail and other public transportation ridership needs. Figure 4.10 identifies the routes that currently serve the Rockville campus.

TABLE 4.10 ROCKVILLE CAMPUS BUS RIDERSHIP 2014

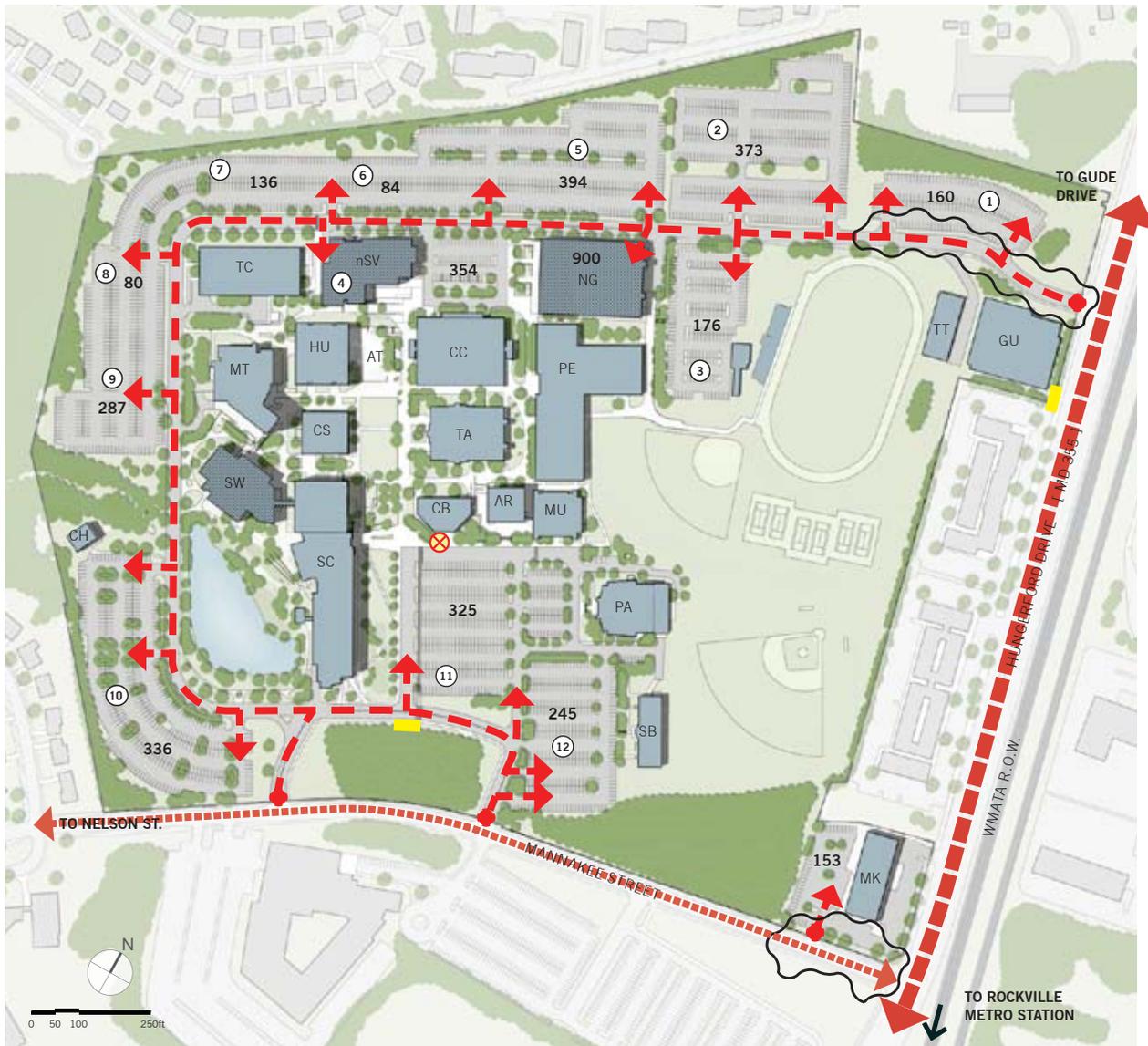
Bus Service	Peak Frequency	Average Weekday Riders	% Montgomery College Pass
Q - Veirs Mill Road	10	9,335	n/a
46 - Shady Grove / Rockville	15	3,719	25.7%
55 - Germantown / Rockville	10	8,083	9.9%

Source: Montgomery College; WMATA; RideOn.

The transit challenges for the Rockville Campus include:

- There is heavy traffic congestion at Mannakee Street and South Campus Drive;
- Bus stops on Mannakee Street contribute to traffic congestion;
- There is a high volume of buses serving the campus with approximately 30 buses per hour at transit stop on South Campus Drive and 60 buses per hour along Mannakee Street;
- The transit passenger waiting facilities are inadequate for passenger volumes;
- There are transit passenger pedestrian safety conflicts with traffic on South Campus Drive. The bus stop is located on the south side of South Campus drive and passengers must cross two-way traffic and often cross behind stopped buses;
- Beginning fall semester 2016, MCPS plans to operate a temporary bus depot from Lot 13. MCPS has indicated that a minimum of 100 full-size school buses will be stored and operated Monday through Friday from Lot 13. The only means of ingress and egress is Mannakee Street. This will further compound traffic congestion.

FIGURE 4.08 PARKING AND VEHICULAR CIRCULATION



- 3 LANES EACH DIRECTION
- - - 1 LANE EACH DIRECTION
- CAMPUS ROADWAY
- CAMPUS ENTRANCE
- BUS STOP
- ⊗ SHUTTLE BUS STOP

- TRAFFIC STACKING
- 01** # PARKING SPACES
- EXISTING CAMPUS BUILDINGS
- IN DESIGN OR CONSTRUCTION
- CAMPUS BOUNDARY
- ⑨** PARKING LOT #

- AR Paul Peck Art Building
- AT Amphitheatre
- CB Counseling and Advising Building
- CC Campus Center
- CH Child Care Center
- CS Computer Science Building
- GU Homer S. Gudelsky Institute for Technical Education
- HU Humanities Building
- MK Mannakee Building
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Montgomery College contracts for shuttle services between the Rockville Campus and the Takoma Park/Silver Spring and between Rockville Campus and Germantown Campus. Shuttle stops are located in front of the Counseling and Advising Building and at the Physical Education Center. Shuttle service for TP/SS starts at 7:00 am and runs approximately every 45 minutes until 7:15 pm. Shuttle service to Germantown starts at 7:00 am and runs every hour until 6:00 pm. The shuttle from Germantown to Rockville runs every hour from 6:30 am to 6:30 pm. The shuttles greatly decrease the travel time between campuses compared with using public transportation. The travel time between Rockville and Germantown is reduced from 90 minutes to 45 minutes.

4.2.7 Major Utilities

The existing central plant and utility distribution infrastructure is a critical underpinning that supports the Campus' built environment. The College is in the process of developing a separate Utility Master Plan that identifies and documents existing and proposed utility infrastructure needs and recommendations.

The latest Utilities Master plan for this Campus was completed in 2012 and includes an overview of the existing Campus utility infrastructure systems as well as a detailed assessment of their condition and ability to meet future demand. This plan is currently being updated in coordination with this Facilities Master Plan. An inventory of major utilities infrastructure is illustrated in Figure 4.11.

The College is in the process of a series of separate planning activities compiled in a Utility Master Plan that identifies utility improvements. Locations and capacities of existing utilities will be considered for any proposed building or facility improvements proposed in this Facilities Master Plan to take advantage of existing infrastructure and minimize disruption of service.

Mechanical

A central heating water plant is located in the Humanities Building, with a satellite heating water plant located in the Science Center Building. The Science Center plant was designed to support installation of two additional boilers in the future as campus heating demand grows. It is connected to the campus distribution system when the Science East Renovation is completed. Several buildings are not currently connected to the campus heating water system including the Child Care Center, Interim Technical Training Center, Maintenance Shops, and the Mannakee Building.

The main central chilled water plant is located in the Humanities Building and it supplies a campus distribution loop. Satellite plants are located in the Science Center and Campus Center and they can supplement the distribution system. A chiller plant was installed in the Science Center; this facility is connected to the distribution system and will also support the renovated and enlarged Science West Building.

The total capacity of the chilled water system is expected to meet current and future demands and the heating system has adequate current capacity and expansion provisions in place to enable the capacity to be increased as required to meet future loads and improve redundancy. However, both the heating and cooling plants in the Humanities Building have reached the end of their expected life. The natural gas service provided by Washington Gas is adequate to meet current demand, but a new gas service will be required to support a new heating plant in the new Student Services Building in the future.

Electrical

The Campus is served by the Potomac Electric Power Company (Pepco) from two (2) 13.2 kV overhead medium voltage lines loop around the campus. There are two other 13.2 kV feeder in the vicinity which are interconnected to the two existing Pepco feeders serving the campus. Most of the buildings have separate utility meters and local step down transformer to distribute 480/277 volt, three phase, four wire system in the building except for the Child Care Center which is being fed from the Science West Building. The existing Pepco feeders have adequate capacity to accommodate planned campus expansion.

FIGURE 4.09 TRANSIT



Civil

The College owns the sanitary sewer collection system (piping, manholes, etc) and is responsible for all maintenance. Actual sewage treatment is the responsibility of the City of Rockville. The existing City of Rockville sanitary outfall from campus is near capacity, and will likely require upgrades for any future projects beyond the Student Services Center. The City of Rockville public water mains, located in Hungerford Drive and Mannakee Street, have adequate capacity to serve the campus.

Natural gas is provided by Washington Gas and the existing service currently meets the Campus needs.

4.2.8 Information Technology Systems

The main point of presence (MPOP) for the campus is currently the Humanities Building. Each of the existing buildings is connected via a ductbank system back to the Humanities Building, and is fed with optical fiber cabling.

The existing information technology infrastructure is a critical underpinning that supports the Campus' built environment. The College is in the process of a series of separate planning activities compiled in an Information Technology Master Plan that identifies these information technology resources.

4.2.9 Natural Systems and Sustainability

Stormwater Management (SWM)

The Campus site is approximately 85 acres, and consists of grass, woods, and impervious area, with a total site imperviousness of approximately 50%. A series of existing storm drain systems is located throughout the campus. The majority of the storm drainage systems outfall into the existing stormwater management pond with the exception of Lots 10, 9, 8, 7, 6, 5, 2 and 1. Lot 10 drains to a storm drain system that outfalls on the south side stormwater management (SWM) pond outfall channel. Lot 9 drains to a storm drain system that outfalls on the north side of the SWM pond outfall channel.

Lots 8, 7, 6 and 5 drain to a storm drain system that outfalls into the wooded area to the west of Lot 9. Parking Lot 2 and a portion of Lot 1 drain to a storm drain system that outfalls into a public storm drainage system located on the north side of Lot 2. The remaining area of Lot 1 and a portion of North Campus Drive drain into a separate storm drain system that drains across MD 355.

The College also receives drainage from off-site storm drain systems that enter the campus at two points along Mannakee Street. The first location is just east of the eastern access point onto the college from Mannakee Street. This off-site storm drainage system collects run-off from the parking lot located on the south side of Mannakee Street and the Ivy League town home community.

The Campus is serviced by a major stormwater management pond located west of the Science Center and south of Science East. The pond was constructed in the mid 1960s and provided for both quantity and quality control for all existing buildings, parking and access roads within its drainage area. The campus area draining into the stormwater pond is approximately 60 acres, with about 35 acres of impervious area. The pond also collects drainage from 62-acres of off-site area to include a portion of Mannakee Street and the Board of Education property located south of Mannakee Street. The pond was retrofitted and enlarged in 1992 to provide water quantity control for the Homer S. Gudelsky Institute for Technical Education (GU) project site. In addition to the GU building site, stormwater management was provided for the seven future projects anticipated at that time. As part of the retrofit, a channel was added on the downstream side of Campus Drive to provide a 100-year overland flood path. The pond was once again upgraded as part of the construction of the Science Center in 2009. The 2009 pond retrofit upgraded the pond to meet then-current State and City of Rockville stormwater management

FIGURE 4.10 TRANSIT

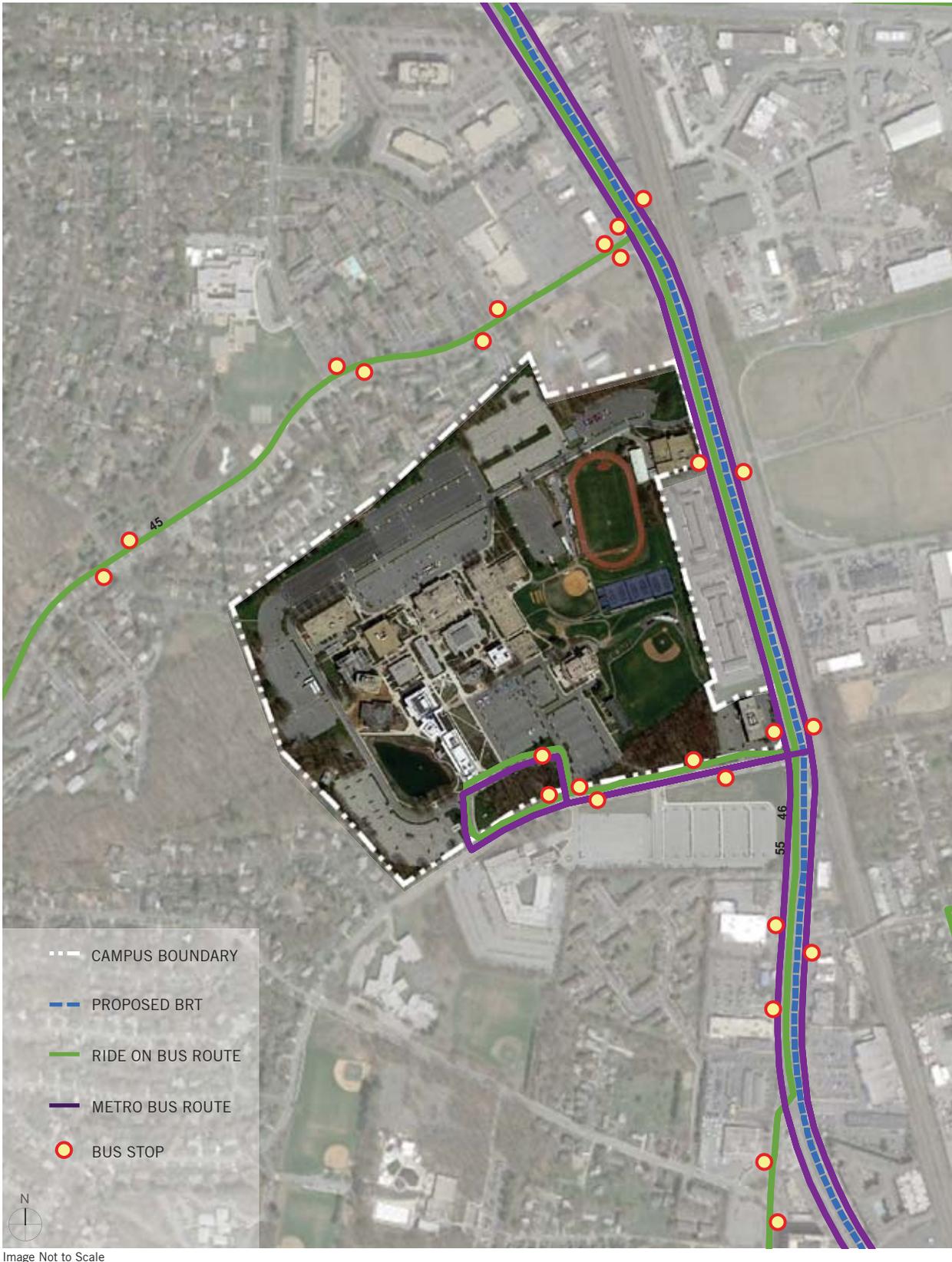


Image Not to Scale

requirements which included Water Quality Control, Channel Protection Volume and the 10-year Overbank Flood Control Volume. The pond was sized to provide 100% treatment for the Campus area that currently drains to it. Further detailed information regarding the analysis and design of the pond is located in the Stormwater Management Final Report, Montgomery College Rockville Science Center and tracked under the City of Rockville Stormwater Management Permit SMP 2007-00025. The pond was also classified as a Significant Hazard Facility by the Maryland Department of Dam Safety and tracked under Permit Number 09-MR-0023, MDE Dam # 469. Since the pond is considered a Significant Hazard Facility, the College is responsible to maintain and update, on a yearly basis, an Emergency Action Plan. The purpose of the Emergency Action Plan is to safeguard lives and secondarily to reduce property damage in the event that the dam should fail. The Emergency Action Plan contains a dam failure inundation map and required notification contacts and associated process.

In 2009, the State of Maryland Stormwater Management Act of 2007 was passed, requiring the development of a stormwater management plan that implements Environmental Site Design (ESD) to the “maximum extent practicable” and ensuring that structural best management practices are only used where absolutely necessary.

ESD is defined as using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic run-off characteristics and minimize the impact of land development on water resources. ESD includes conserving natural resources (drainage patterns, soil and vegetation; minimizing impervious surfaces (roads, walks, roofs) and increasing infiltration and evapotranspiration; and using other non-structural practices and innovative technologies.

Stormwater management permitting review and approval for the Rockville Campus is conducted by the City of Rockville. The City’s stormwater management requirements are provided in Chapter 19 of the City Code. The majority of the development on the Campus would be considered as “Redevelopment” since the amount of existing impervious area would be above 40% of the project area. The City Code does not provide credit for “redevelopment” unless a project shows it can reduce existing impervious cover by 50% or more. The City Code for Redevelopment projects, allows the City to permit treatment from less than 1-inch of rainfall if it can be demonstrated to the City’s satisfaction that full treatment is not feasible. This approach is project specific and subject to the City’s interpretation.

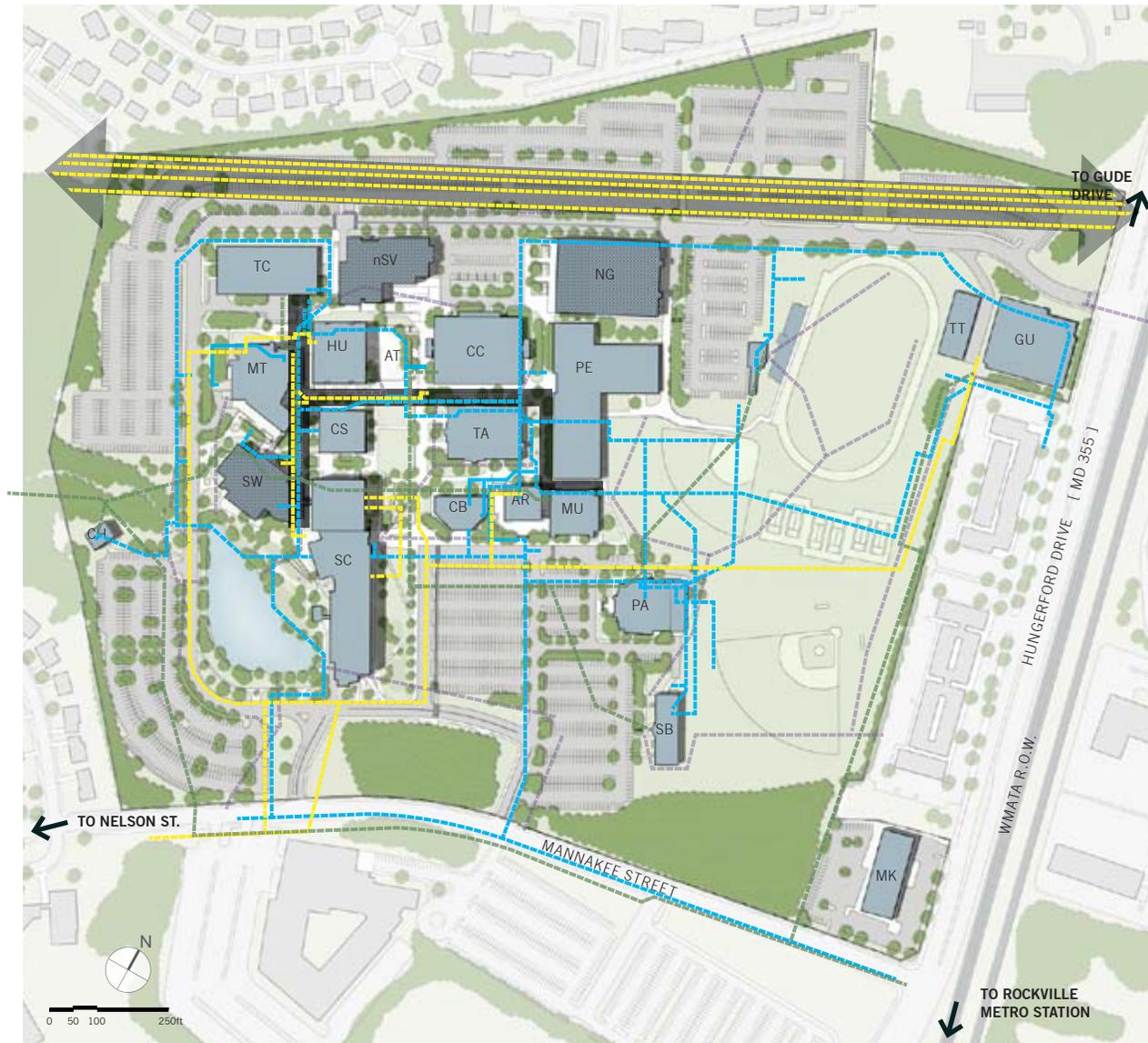
ESD treatment to the maximum extent practical was provided for both the Science East and Science West Building renovations, in both cases several micro-bioretenion facilities were provided, each sized to only treat one inch of runoff falling short of the total required ESD volume according to the MDE Chapter 5 computations. However, this shortfall was compensated for by using the treatment and storage in the regional pond.

For the construction of the tennis courts and Lot 3, stormwater management was treated by the regional pond, however, an infiltration trench was provided at the tennis courts to provide the required Recharge Volume treatment.

For the North Garage, two micro-bioretenion facilities will be constructed to the west of the garage and two micro-bioretenion facilities will be constructed southeast of the Physical Education Center. Due to site limitations, the four micro-bioretenion facilities will only provide 40.5% of the total Environmental Site Design treatment volume.

As of November 2015, the new Student Service Center is under design and the A/E is coordinating the stormwater management approach with the City of Rockville. During the SWM Concept Review, the City had indicated that the College must provide SWM facilities to provide treatment of 40.5% of the ESD volume. Again due to site constraints, the project will not be able to provide treatment facilities for the full ESD treatment volumes. The College and the City are coordinating to determine an acceptable solution for ESD treatment.

FIGURE 4.11 MAJOR SITE UTILITIES



- MAJOR CAMPUS UTILITY SPINE
- WATER LINE (TRUNK | SUPPLY + RETURN)
- UG NATURAL GAS LINE (NATURAL | RIGHT-OF-WAY)
- SANITARY LINE
- STORM SEWER
- CENTRAL PLANT
- EXISTING CAMPUS BUILDINGS
- IN DESIGN OR CONSTRUCTION
- UTILITY RIGHT OF WAY
- CAMPUS BOUNDARY

- AR Paul Peck Art Building
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Forest Conservation

The Campus is intensively developed, with a core of buildings surrounded on three sides - south, west and north - by parking lots. East of these core buildings are athletic fields that lie between the Campus and the commercial strip along MD 355. As shown on the Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) plan, narrow strips of trees, most of which are white pines, provide screening between parts of the Campus and adjacent uses. Some of these areas are candidates for additional tree planting to meet future forest conservation and significant tree replacement requirements.

Below the stormwater management pond in the southwestern part of the Campus, between West Campus Drive and the western edge of campus, a stream flows through a small parcel of forest, 38,500 sf in size. This riparian forest is contiguous with the forest in Pollinger Park. It is moderately well stratified, dominated by tulip poplar, oaks and maples, and has a mixed understory of small trees, shrubs and herbaceous cover. Invasive species (e.g. honeysuckle, grape, briars, poison ivy) are common in some areas and the intensity of surrounding development has adversely affected the overall condition of the forest. Since it lies within the stream buffer and is part of the headwaters of Watts Branch, the forest is a high priority for retention.

There are two other areas of tree cover on the southern side of the campus. One is located south of the athletic fields and adjacent to the commercial strip along MD 355. It is approximately 125,835 square feet in size. The understory has been cleared occasionally. The understory remnants include many low-quality invasive species such as Japanese honeysuckle. Another stand of trees approximately 63,015 sf in size is to the west of the first stand. It is a somewhat smaller island of trees surrounded by Mannakee Street, Campus Drive, and two vehicular entrances to the campus. This area is the main arrival point of the campus and has a high level of traffic from private vehicles, trucks, buses and pedestrians. The understory of this stand of trees is mowed periodically. It has been maintained to provide visibility and a sense of safety to people who frequent the campus.

The remainder of the Campus has an urban character, with trees situated in planting areas adjacent to buildings and roads, plazas, parking lot islands, etc. The area around the stormwater pond is park-like, with scattered trees and other ornamental plantings in a continuous lawn to the water's edge. As a whole this variety of plantings enhances the aesthetics of the campus and provides other benefits typical of urban trees. (See Figure 4.06 Open Space and Streetscape)

4.3 EXISTING BUILDING CONDITIONS and ANALYSIS

4.3.1 Building Usage

Buildings on the Campus generally fall into six categories of use: Academic, Student Services, Administrative, Operations, Recreational/Physical Education, and Community. (See Figure 4.13 Building Usage)

Academic

Science West Building (SW) (41,988 GSF) originally a two-story structure, Science West Building is currently being completely renovated and a third floor is being added. The completed building will house the Mathematics Department. For the purposes of this Facilities Master Plan, this building project is complete.

Science Center (SC) (140,700 GSF) (SE: 53,737 GSF) is a large four-story structure completed in 2014 and an attached building, formerly known as Science East, that was renovated in 2014. The building houses the Biology, Chemistry, and Physics, Engineering, and Geosciences programs that were relocated from their current homes in Science East and Science West Building. The Science Center also includes an Observatory that was relocated from the Gordon and Marilyn Macklin Tower. The building includes class laboratories, greenhouse, and most of the classrooms required to support science instruction. The most prominent space is large central atrium that culminates the west end of the proposed Arts Walk on campus, and opens onto an outdoor classroom adjacent to the stormwater pond. Also included in the building are a series of heavily used large group meeting rooms.

Paul Peck Art Building (AR) (25,594 GSF) is a four-story structure constructed in 1971 and renovated in 2000 that includes two general purpose classrooms and Art studios (sculpture, drawing, ceramics, jewelry, printmaking, and painting), support spaces (plaster room, kiln room, acid room, welding room, solvent room, and storage), a slide library, gallery, faculty offices and open computer laboratory.

Insufficient space is available for ceramics, sculpture, jewelry, printmaking, locker rooms for students, lobby and lounge space. In addition, there is a need for an Art student study area and additional faculty offices.

Music Building (MU) (20,499 GSF) is a two-story structure constructed in 1971 and renovated in 2002. The building includes a recital hall for 118, a rehearsal hall for 110, teaching studios and laboratories, faculty and staff offices, and three general purpose classrooms for use by the Music Department.

As the scope of the 2002 project was limited to renovation of the existing structure, there are still some existing deficiencies in the size and capacities of the teaching laboratories and in future flexibility to accommodate additional full-time staff and support.

Computer Science Building (CS) (20,900 GSF) is a two story building constructed in 1966 and houses two general purpose classrooms, three teaching computer laboratories and four open computer laboratories, the campus based Instructional Technology staff offices, and the College's central computer center. The existing two-story facility has been partially renovated to provide teaching, open laboratories, and will continue to house the Campus' main administration computer center.

Theatre Arts Building (TA) (35,032 GSF) is a two story structure with an inaccessible partial basement that was constructed in 1966 and renovated in the mid 1990s. It houses five general purpose classrooms, a 60-seat lecture hall, class laboratories, offices for Speech, Dance and Theater staff and faculty, and a 500-seat arena and stage with support facilities. Classes in speech, dance and theater are taught primarily in this building.

Functional issues include insufficient public space for performances, lack of storage space, questionable accessibility at the first and second floor levels, undersized and inadequate number of offices, and minimal back-of-house space (scene shop, costume construction, workspace and storage.)

FIGURE 4.12 BUILDING MASSING AND MATERIALS

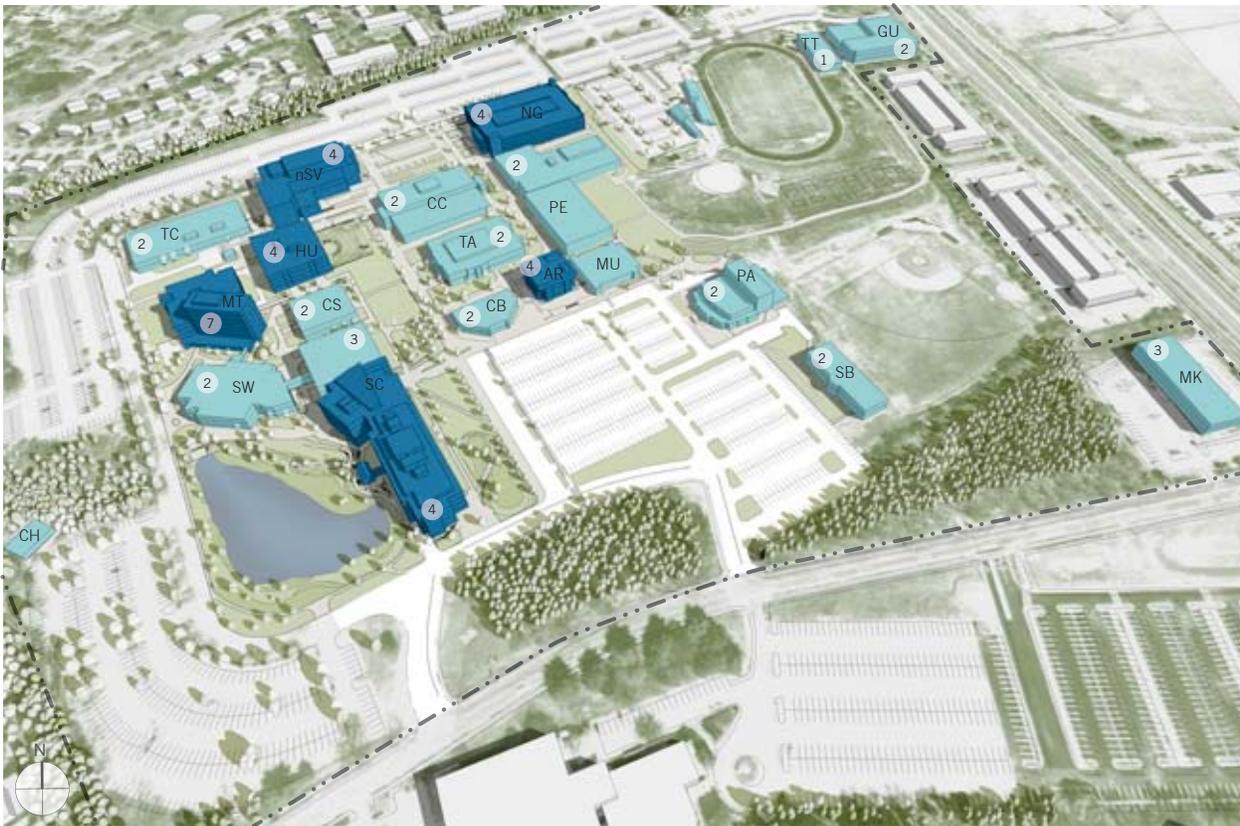


Image Not to Scale

- 1-3 STORY BUILDINGS
- 4+ STORY BUILDINGS

- NON-CAMPUS BUILDINGS
- CAMPUS BOUNDARY
- # # STORIES

- AR Paul Peck Art Building
- CB Counseling and Advising Building
- CC Campus Center
- CH Child Care Center
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Gordon and Marilyn Macklin Tower (MT) (117,282 GSF) is a four story base plate and an additional three story office tower above that was constructed in 1971. The building accommodates the Mathematics and Science Center, the Computer Writing and Language Laboratory, the Provost's offices, Dean's offices, the television studio, the campus library (stack space, study space, and offices/support space) and offices and support spaces for the Departments of Computer Applications, Computer Sciences, English, Humanities Institute, Information Technology, Psychology, Reading, English as a Second Language (ESL), Foreign Languages, and Philosophy.

There is inadequate library study space including group study rooms and lounge space. Departmental collections, for example, the Education Department collection, need to be centralized. There is insufficient space to consolidate, either in this building location or other campus locations, departmental administrative and faculty offices, resulting in departmental location fragmentation. Further, there is a need to add additional vertical (ADA) accessibility.

Humanities (HU) (73,912 GSF) was constructed in 1966 with a ground floor and an additional three floors above ground, and renovated in the 1990s. The building houses a majority of the general purpose classrooms on the campus; computer teaching laboratories and open computer laboratories, Development Math Laboratory, Writing and Reading Center, and faculty and staff offices for the Departments of Anthropology, Criminal Justice, Sociology, Business Administration and Economics, Computer Applications, History and Political Science, and the Macklin Business Institute and Center for Teaching and Learning. In addition, the campus' Central Plant, and central telecommunications and mail facility are located in this building.

Although the Humanities Building was recently renovated, the social sciences departments are still fragmented. In addition, there is insufficient space to accommodate the consolidation of the English and Reading Departments and the Writing Center which is split between this building and the Gordon and Marilyn Macklin Tower.

Robert E. Parilla Performing Arts Center (PA) (28,000 GSF) is a two- story structure with a partial basement constructed in 1984. The building has a 500 seat theater and is the site for both campus academic productions and community performances. Campus student productions are presented here as are events in the College's professional theater series. This facility is also used extensively by the public. Support spaces include stage, orchestra pit, scene shop, storage, green rooms, dressing rooms, box office and storage.

Current needs include a campus meeting room suite, expansion of performance support spaces (storage of portable tables and chairs, audio- visual storage, scene shop and property storage, costume storage/fitting/repair/laundry, lighting shop/storage, tool/paint rooms), provision of a catering kitchen, additional restrooms, an improved loading dock, and additional offices to support the functions of the Robert E. Parilla Performing Arts Center. There is an additional desire to expand the seating in the center to attract a broader range of performance groups to serve the Montgomery County community.

South Campus Instruction Building (SB) (29,900 GSF) is a two story-plus ground floor that as constructed in 1996 to provide flexible space for classrooms, laboratories and faculty offices during renovations of other campus structures. It is a modular building and was not originally intended to serve as a permanent academic structure.

This facility has served the original intent despite pressures to utilize this facility for permanent occupancy due to significant space deficiencies throughout the campus.

Technical Center (TC) (55,908 GSF) is a two-story structure built in 1966 and houses eight general purpose classrooms, a 72-seat lecture hall, career oriented programs, laboratories, support spaces, and offices under the Departments of Communications Arts Technologies and Applied Technology (such as graphic arts, professional photography, radio/television, applied geography (GIS), architectural technology, interior design, construction management, fire science, and computer-aided design and graphics.) In addition, the building includes a small gallery and faculty and staff offices for the Department of Management.

FIGURE 4.13 BUILDING USAGE

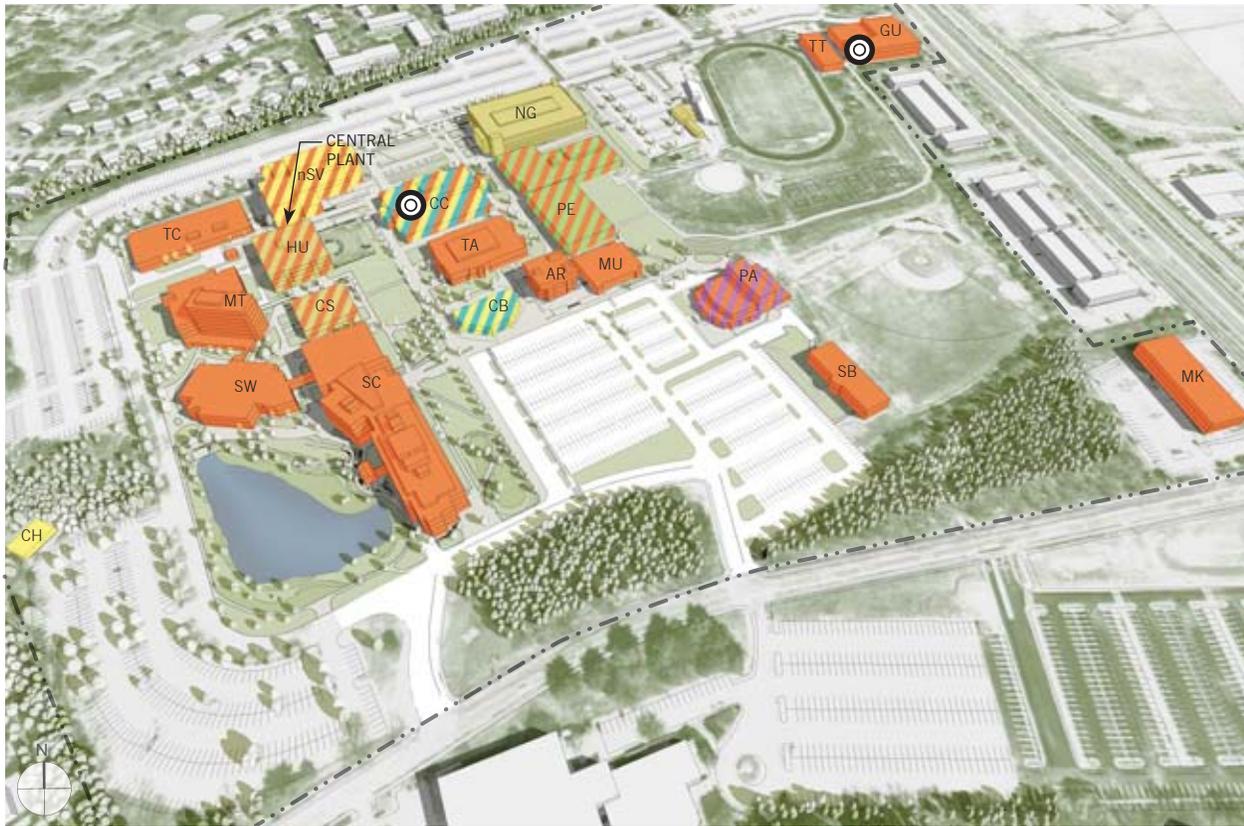


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- ACADEMIC
- STUDENT SERVICES
- OPERATIONS
- ADMINISTRATIVE
- PHYSICAL EDUCATION
- COMMUNITY

- NON-CAMPUS BUILDINGS
- CAMPUS BOUNDARY
- # # STORIES
- ◎ WORK FORCE DEVELOPMENT DEDICATED SPACE

- AR Paul Peck Art Building
- CB Counseling and Advising Building
- CC Campus Center
- CH Child Care Center
- CS Computer Science Building
- GU Homer S. Gudelsky Institute for Technical Education
- HU Humanities Building
- MK Mannakee Building
- MT Gordon and Marilyn Macklin Tower
- MU Music Building
- nSV New Student Services Building
- NG North Garage
- PA Robert E. Parilla Performing Arts Center
- PE Physical Education Center
- SB South Campus Instruction Building
- SC Science Center
- SW Science West Building
- TA Theatre Arts Building
- TC Technical Center
- TT Interim Technical Training Center

Current deficiencies include undersized laboratories and classrooms, insufficient support spaces, lack of technology for instruction, inadequate lounge space and undersized and inadequate number of offices for faculty and staff.

Homer S. Gudelsky Institute for Technical Education (GU) (64,000 GSF) is a two story structure constructed in 1992 as a state-of-the-art technical training facility offering instructional programs in four primary areas: automotive, building and construction, manufacturing and fabrications, and printing management. The facility provides 18 instructional laboratories and support facilities, eight classrooms, (three of which serve as a conference center) and faculty and staff offices. In addition, Central Services Response Center and Workforce Development & Continuing Education occupy space in this building.

In addition to the need to relocate the Central Services and WD&CE functions from the building and acknowledging that on-going space modifications are necessary to meet changes in market technical training opportunities/requirements, the current need is for storage.

Interim Technical Training Center (TT) (9,360 GSF) was constructed in 1988 and houses two corporate classrooms, Building Trades and Sheet Metal and Plumbing Laboratories, four vehicle storage bays, a corporate laboratory, storage, a machine shop and staff/corporate offices.

This pre-engineered one story structure does not fulfill the space needs and functions of the Homer S. Gudelsky Institute for Technical Education.

Student Services

Campus Center (CC) (74,300 GSF) is a two-story structure with a ground floor constructed in 1966 and partially renovated in 2001. The building accommodates the bookstore, the MC Café, a full commercial kitchen, MC Copies (graphics and copy shop), dining rooms for students, faculty and staff, student lounge, MC Munchies (candy and snack shop), and a recreation center. The Campus Center also houses Workforce Development & Continuing Education classrooms and offices, English Department faculty offices, the Trio and Project Success programs, the Department of Management's Hospitality Management food laboratory and support facilities, the Office of Student Life, the Assessment Center, Central Administration's Auxiliary staff offices, and Central Receiving and Warehousing.

Campus Center is the only building that serves student life on campus and severely lacks adequate lobby and lounge space for this purpose. There is a need to substantially enhance the quality of life on campus for commuting students with recreation activities and with facilities to support their total development. There is also a need to substantially enhance the quality of life for the entire campus community with a wider range of services and merchandising venues. This will require relocation of non-campus student related functions as well as Central Services functions which currently occupy approximately 42% of the available building NASF.

Counseling and Advising Building (CB) (17,6976 GSF) a two-story structure built in 1969 that houses Disability Support Services including the Learning Center, Counseling, Student Employment Services, Career/ Transfer Center, Dean of Student Development, and the Safety and Security Office.

New Student Services Center (nSV) (127,200 GSF) is currently in design and, when complete, will replace the existing one-story Student Services Building. The new building will be four stories tall and be located at the northern edge of campus, terminating the pedestrian mall. The building will house the campus offices of Admissions, Academic Vice President and Provost, Assessment, Cashier, Career Services, Counseling and Advising, Dean of Students, Disability Services, Enrollment, Financial Aid Scholarship, Student Life and Veteran Affairs. The building will also house academic and support functions including classrooms and offices for the department of Education, Assessment, ACES and TRIO. Student Service functions and spaces in the building

FIGURE 4.14 GENERAL BUILDING CONDITIONS

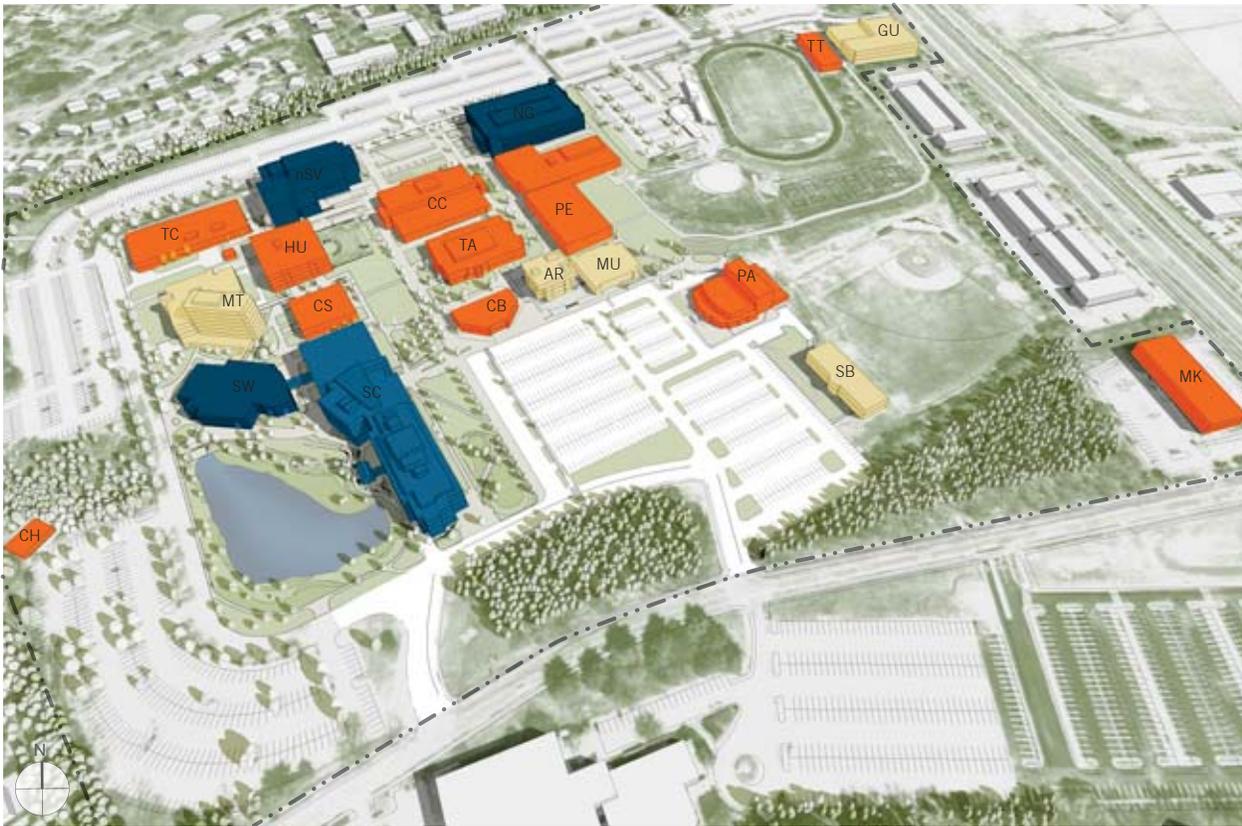


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FACILITIES CONDITION INDEX:

	0.30 +	POOR
	0.10 – 0.30	FAIR
	0.05 – 0.10	GOOD
	0.00 – 0.05	😊

	IN DESIGN OR CONSTRUCTION
	NON-CAMPUS BUILDINGS
	CAMPUS BOUNDARY

AR	Paul Peck Art Building
CB	Counseling and Advising Building
CC	Campus Center
CH	Child Care Center
CS	Computer Science Building
GU	Homer S. Gudelsky Institute for Technical Education
HU	Humanities Building
MK	Mannakee Building
MT	Gordon and Marilyn Macklin Tower
MU	Music Building
nSV	New Student Services Building
NG	North Garage
PA	Robert E. Parilla Performing Arts Center
PE	Physical Education Center
SB	South Campus Instruction Building
SC	Science Center
SW	Science West Building
TA	Theatre Arts Building
TC	Technical Center
TT	Interim Technical Training Center

will include a Multicultural Student Center. Other functions and support spaces in the building include a Café, Operations and Maintenance space and the Safety and Security Office.

Child Care Center (CH) (2,498 GSF) constructed in 1986, is licensed to enroll up to 40 children. The pre-engineered, one story structure includes a staff office, two play areas, a kitchen, storage area and toilets.

The current facility is inadequate as it relates to square footage of play space per student, storage, preparation and office space, and meeting space with parents. In addition, the current arrangement does not provide a medium for parents and teachers to observe classroom and social behaviors of children so that appropriate intervention strategies can be planned and implemented. The College anticipates they will close this facility in the summer of 2016.

Recreational

Physical Education Center (PE) (84,949 GSF) is a two-story structure that was constructed in two phases, beginning in 1966 and includes a swimming pool with a separate diving area, two all-purpose gymnasiums, a fitness center, a weight room, multi-purpose room, two dance studios, a Body Density Laboratory, faculty, staff, and student and team locker and shower facilities, training room, nine general purpose classrooms, and faculty and staff offices for the Department of Health and Exercise Science, and Physical Education and Athletics.

Current deficiencies in support of the Health Enhancement, Exercise Science and Physical Education Department include the need for Health Assessment, Health Education and Movement assessment laboratories, expanded Fitness Center, Weight room, Multi-purpose Room, Sports Medicine Facility and Aerobics/Combatant Arts Room, redistribution of locker and shower facilities to accommodate students and changes in athletic programs, and “right-sizing” of offices of both faculty and staff.

Operations

Maintenance Shop (4,720 GSF) is a “temporary” wood structure housing equipment and supplies to support maintenance of the campus buildings. The building has inadequate storage capacity and insufficient space for offices and equipment. In addition, there are a few out buildings that do not contribute to the NASF of the campus, but provide valuable support. These include:

- Canoe Trailer Shed (420 GSF, constructed in 1990)
- Concession Stand/Toilet (240 GSF, constructed in 1994)
- Football Shed (600 GSF, constructed in 1997)
- Tennis Shed (120 GSF, constructed in 2013)



SC - Science Center



AR - Paul Peck Art Building

MU - Music Building



TA - Theatre Arts Building

MT - Gordon and Marilyn Macklin Tower



MT - Gordon and Marilyn Macklin Tower

HU - Humanities Building



Source: Montgomery College

GU - Homer S. Gudelsky Institute for Technical Education



PA - Robert E. Parilla Performing Arts Center



SB - South Campus Instruction Building



TC - Technical Center



Source: Montgomery College



MK - Mannakee Building



CC - Campus Center



CB - Counseling and Advising Building



PE - Physical Education Center



TABLE 4.11 ROCKVILLE CAMPUS TOTAL REPLACEMENT AND FCI VALUES FOR BUILDINGS, 2015

	Building Name	Use	Age/Year Built	Size	RV	FCI Cost	FCI
CC	Campus Center	Multi-use	50/1966	74,302	15,328	6,358	0.41
	Central Plant	Infrastructure		4,700	897	2,300	0.59
CH	Child Care Center	Day Care	30/1986	2,498	605	183	0.30
CS	Computer Science Building	Classroom/Office	50/1966	20,862	4,601	3,094	0.67
CB	Counseling and Advising	Office	47/1969	17,696	3,559	1,875	0.53
GU	Homer S. Gudelsky Institute	Classroom/Training	24/1992	64,000	14,085	5,272	0.37
HU	Humanities	Classroom	50/1966	73,912	12,564	4,575	0.36
TT	Interim Tech. Training Center	Classroom	28/1988	9,360	1,382	606	0.44
MT	Gordon and Marilyn Macklin Tower	Multi-use	45/1971	117,282	22,680	4,153	0.18
MK	Mannakee Building*			42,102	7,369	2,326	0.32
MU	Music Building	Classroom	45/1971	20,499	2,763	488	0.18
PA	Robert E Parilla Perf. Arts Center	Auditorium	32/1984	28,000	8,716	3,091	0.35
AR	Paul Peck Arts Building	Classroom	45/1971	25,594	5,749	1,627	0.28
PE	Physical Education Center	Athletic	50/1966	84,949	20,166	12,423	0.62
SC	Science Center	Classroom		140,700	34,430	5	0.00
SE	Science East*	Classroom		53,737	13,902	2,252	0.16
SW	Science West Building	Classroom		41,988	10,391	1,726	0.17
SB	So Campus Instruct Bldg	Classroom	20/1996	29,900	5,447	1,584	0.29
SV	Student Services Building	Student Center	50/1966	10,448	2,021	1,291	0.64
TC	Technical Center	Classroom	50/1966	55,908	10,015	5,901	0.59
TA	Theatre Arts Building Building	Multi-use	40/1966	35,032	7,411	2,428	0.31

* The Science East Building has been completed renovated and is now considered to be part of the Science Center. Major HVAC equipment has been replaced, which would lower the FCI to 0.30.

Source: Montgomery College

TABLE 4.12 BUILDING DEFICIENCY FOR CATEGORY AMOUNT AND % OF TOTAL BUILDING DEFICIENCY

Less than 25% deficiency (5 buildings)	\$8,624,822	14%
26% to 50% (10 buildings)	\$28,049,876	44%
51% or greater Deficiency (6 buildings)	\$26,884,729	42%
TOTAL	\$63,559,427	100%

4.3.2 Building Conditions and Deficiencies

In August, 2015, the College updated the facilities condition assessment for buildings and site infrastructure components including: electrical utilities, storm sewer, sanitary sewer, parking lots, etc. at each of its three campuses. The goals of this effort were to:

- Develop a baseline condition assessment of each facility including related infrastructure components and building systems.
- Provide budget estimates to address required safety improvements and deferred maintenance backlogs for planning purposes.
- Identify building code and accessibility issues and compliance needs to ensure that the facilities are operated as required.
- Utilize facility assessment findings to inform the development, prioritization, budgeting and scheduling of capital and maintenance/repair projects to address facility deficiencies.

The facilities condition assessment process included the following:

- A Current Condition Analyses of existing facility deficiencies including deferred maintenance, deferred renewal, near-term anticipated renewal, recommended discretionary improvements, and code non-compliance issues was completed.
- Anticipated capital renewal analyses developed projections of ongoing degradation of facilities' components and costs associated with renewal or replacement of these components as they reach the end of their useful life.
- Capital funding analyses involved formulation of scenario comparisons showing various funding levels and the effect of each on the condition and value of the building.

Information developed as part of the Facilities Assessment provided information for the development of a Facilities Condition Index (FCI) rating for each building on campus.

Facility Condition Index (FCI)

The FCI is a standard process for assessing the relative condition of buildings and site infrastructure components, facilitating comparison both within and among the campuses. For each building or site component, the Facility Condition Index (FCI) was developed which measures the relative amount of current deficiencies in the building including recommended improvements and grandfathered issues. The total value of recommended corrections is divided by current replacement value for the building or site component resulting in the FCI. The higher the FCI, the poorer the condition of the facility or system component. The FCI ranges for the standard of services for each building or site component are:

Good: .00 to .05
Fair: .05 to .10
Poor: Greater than .10

FCI is a standard measure used throughout the country; it is recommended by both the National Association of College Business Officers (NACUBO) and the Association of Higher Education Facility Officers (APPA). Table 4.11 summarizes the findings from the 2015 assessment of buildings on the Campus.

Buildings with an FCI rating of “Poor” should receive highest consideration for renovation through a capital project. For those buildings with an FCI rating of 0.60 or higher more study should be completed to determine if comprehensive renovation or demolition is the most feasible option. Buildings constructed in the late 1970s and early 1980s, that have not had capital renovation, are all in need of major systems upgrade or replacement in the future.

Buildings with an FCI rating of “Poor” should receive highest consideration for renovation through a capital project. For those buildings with an FCI rating of 0.60 or higher more study should be completed to determine if comprehensive renovation or demolition is the most feasible option.

Table 4.12 provides a summary of the building deficiency amount by FCI range.

4.4 FACILITIES PROGRAM

4.4.1 Campus Space Planning Factors

There are many planning factors that contribute to the dynamic and shifting landscape of today's higher education institutions. Some of the key planning factors to be considered in campus master planning that are anticipated to influence and drive the demand for higher education programs and the supporting facilities at Montgomery College are discussed in this section.

Past and Projected Enrollment and Program Growth

Montgomery College overall has experienced significant enrollment growth over the past five years. The Rockville campus has grown by 14% in total student FTE enrollment since 2008 and is projected to increase FTE enrollment by 32% by 2023. During this same planning period, Maryland is expected to see high growth in middle and high skill jobs requiring a two year or four year degree. This increase in jobs, along with the planned enrollment growth, will be a major factor driving the demand for access to educational programs and the supporting facilities.

Other drivers of enrollment growth at Montgomery College and its campuses are anticipated to include state incentive programs such as Dual Enrollment (Maryland's College and Career Readiness and College Completion (CCRCC) legislation) and the Dream Act (Chapter 191 of 2011, Senate Bill 167 Public Institutions of Higher Education – Tuition Rates – Exemptions). In addition, an on-going national trend of escalating increases in tuition costs and associated fees at four-year institutions continues to make affordability a primary issue for many students. This trend is expected to continue into the foreseeable future resulting in expanded demand for more affordable access at community colleges.

Changes to Teaching Pedagogy

Teaching pedagogy in the 21st Century is focused on providing students with experiential and group based learning activities that promote learning for practical application in the work environment. Teaching methodologies and pedagogy are undergoing transformation and no longer are four walls and a chalkboard sufficient to provide the instructional environment and tools that students and faculty need to be successful. Classrooms must be flexibly configured and furnished, and equipped with robust instructional technology to be adaptable to new teaching methodologies grounded in student-centered and group learning activities. Flexible spaces, both inside and outside of the formal classroom, are needed to support student collaboration, practice, and group work. In addition, more curriculums are requiring laboratory classes. These factors typically require a higher space allocation per student station in instructional spaces and more informal student study spaces outside of the classroom.

4.4.2 Space Utilization

Building space is a valuable institutional resource and is an important asset in supporting teaching and learning, and student development and success. Enrollment management and space scheduling are significant components that impact facilities usage and master planning. Class scheduling directly impacts the utilization of space. To most efficiently use instructional space, class sizes need to be aligned with desired class size cohorts. In this regard, Maryland has established standards for classroom and class laboratory room and student station utilization for community colleges, which is used as the basis for the fall 2014 "utilization snapshot" assessment of campus.

In accordance with MHEC goals, Montgomery College would ideally schedule classrooms from Monday through Friday, during day hours of 8 a.m. to 5 p.m., at a minimum of 27 of the 45 day hours per week or at a 60% utilization rate for credit instruction. In addition, the College would fill a minimum of 66.7% of the student stations for each classroom scheduled.

TABLE 4.13 ROCKVILLE CAMPUS SPACE UTILIZATION, FALL 2015

		Room Utilization	Student Station Utilization
Paul Peck Art Building (AR)			
FL 1	Lecture	58.00%	72.16%
FL 2	Lecture	46.67%	65.91%
FL 3	Lecture	70.37%	77.60%
FL 4	Lecture	52.22%	80.89%
Campus Center (CC)			
*FL 2	Lecture	46.05%	72.97%
	Lab	3.11%	70.00%
Computer Science Building (CS)			
FL 0	Lecture	42.37%	64.66%
FL 1	Lecture	47.17%	66.25%
Homer S. Gudelsky Institute for Technical Education (GU)			
*FL 1	Lecture	35.73%	66.16%
	Lab	54.78%	71.67%
*FL 2	Lecture	39.28%	70.63%
	Lab	16.00%	93.33%
Humanities Building (HU)			
FL 0	Lecture	44.56%	39.61%
FL 1	Lecture	56.48%	54.58%
FL 2	Lecture	64.21%	58.39%
FL 3	Lecture	55.92%	63.77%
Gordon and Marilyn Macklin Tower (MT)			
FL 2	Lecture	16.56%	87.33%
Music Building (MU)			
FL 1	Lecture	30.48%	59.12%
FL 2	Lecture	40.07%	82.07%
Physical Education Center (PE)			
FL 1	Lecture	30.60%	61.25%
FL 2	Lecture	53.56%	40.00%
Pool	Lecture	19.56%	52.78%

*Spaces on this floor are used for both lecture and lab

Source: Montgomery College

TABLE 4.13 ROCKVILLE CAMPUS SPACE UTILIZATION, FALL 2015 cont'd

		Room Utilization	Student Station Utilization
South Campus Instruction Building (SB)			
FL 0	Lecture	51.25%	81.32%
FL 1	Lecture	83.04%	64.15%
FL 2	Lecture	54.44%	61.21%
Science Center (SC)			
*FL 1	Lecture	31.44%	61.62%
	Lab	27.39%	47.42%
*FL 2	Lecture	11.56%	67.50%
	Lab	35.25%	70.37%
*FL 3	Lecture	6.00%	75.42%
	Lab	25.85%	80.98%
*FL 4	Lecture	20.94%	65.09%
	Lab	15.88%	67.34%
Science West Building (SW)			
FL 0	Lecture	49.21%	52.44%
FL 1	Lecture	48.32%	43.82%
Theatre Arts Building (TA)			
*FL 1	Lecture	29.83%	76.70%
	Lab	21.56%	86.11%
*FL 2	Lecture	48.81%	56.88%
	Lab	4.00%	100.00%
Technical Center (TC)			
*FL 1	Lecture	30.63%	73.82%
	Lab	20.89%	72.05%
*FL 2	Lecture	30.68%	61.64%
	Lab	12.03%	55.03%
Interim Technical Training Center (TT)			
FL 1	Lecture	58.00%	64.44%

*Spaces on this floor are used for both lecture and lab
 Source: Montgomery College

In accordance with MHEC goals, Montgomery College would ideally schedule class laboratories from Monday through Friday, during day hours of 8 a.m. to 5 p.m., at a minimum of 18 of the 45 day hours per week or at a 40% utilization rate or credit instruction. In addition, the College would fill a minimum of 60% of the student stations for each class laboratory scheduled.

A general campus wide analysis of average room and station utilization by academic building for the fall 2014 semester for this campus was completed with the results summarized in Table 4.13. Observations can be made from the snapshot analysis that may identify opportunities to better utilize space and seating capacity as well as physical constraints limiting the better use of space. However, these observations and any subsequent recommendations must be developed with caution, since both quantitative and qualitative issues can affect scheduling and utilization of rooms.

A general assessment by academic building, based on fall 2014 scheduling data from the College for credit classes during day hours from Monday through Friday, yielded the following observations.

- Classrooms in most buildings have capacity to accommodate additional classes based on room utilization data;
- Laboratories in some buildings have capacity to accommodate additional classes based on room utilization data;
- The campus is meeting or exceeding the Maryland student station utilization rates for classes that are scheduled, with very few exceptions;
- Some classes and class laboratories are scheduled outside of or overlap the typical scheduling matrix hours used for Monday, Wednesday and Friday and Tuesday and Thursday, creating inefficiency. This may be unavoidable due to curriculum requirements;
- Late afternoon hours in some buildings appear to be under-scheduled on Fridays.

Qualitative Assessment

At the heart of determining the quality of campus space, and more specifically instruction space, is an analysis of how effectively space is meeting the intended function. General observations can be made based on the age, condition, general utilization of the building and input from campus staff as to how effectively space is being used. Observations about the quality of existing space include:

- Eleven of the fifteen academic and academic support buildings on the Campus were designed and constructed more than 25 years ago. Although some have been renovated, the instructional space configuration of these buildings has generally not changed, except for Science East and West, and most do not fully support the desired teaching pedagogy. Classrooms in these buildings and others are designed primarily for a lecture set up to support the “Sage on the Stage” teaching style. These spaces typically do not provide flexibility for reconfiguring furniture and using instructional technology to support group and collaborative learning;
- Most of the older academic buildings have little or no informal/social student study and learning space for use in student-to-student, student-to-faculty and/or small groups outside of the classroom or laboratory (flipped classrooms.)

4.4.3 Campus Space Needs

Assessments of the current and projected facilities space needs at the Rockville Campus are generated by applying current and projected planning data related to enrollment, instructional delivery, library collections, faculty, and staff to the State of Maryland Guidelines for facilities at community colleges. The planning data referenced above and used to compute current and projected space needs is documented in Table 4.14.

TABLE 4.14 ROCKVILLE CAMPUS SPACE NEEDS ASSESSMENT PLANNING DATA, FALL 2013 AND 2023

	Actual Fall 2013	2006 FMP Projected Fall 2023	% Change Fall 2013
FTDE	6,555	8,415	28%
FTDE (inc on line)	6,732	8,642	28%
Day SCH	100,980	129,630	28%
Day WSCH-Lec	92,283	97,635	6%
Day WSCH-Lab	57,015	65,168	14%
Day WSCH	149,298	162,803	9%
FTE	9,602	12,645	32%
Credit Hours (SCH)	130,628	152,835	17%
Bound Volume Equivalents	216,708	234,045	8%
FTEF	504	559	11%
FT fac	307	325	6%
PT fac	788	936	19%
FTES	803	850	6%
FT staff	790	833	5%
PT staff	52	66	27%
Planning Head Count	4,013	5,017	25%
Headcount Student (HCS)	16,441	20,819	27%

Source: Montgomery College

Current and projected space needs are then computed for each type of space in the campus inventory for which a guideline is available. Comparisons with the campus' current inventory and the one planned for the ten year planning period, given approved capital projects, are made, and surpluses or deficiencies relative to the respective space categories are identified. Table 4.15 documents the results of this analysis and breakdown by ROOM USE category.

Currently the Rockville Campus, excluding space supporting Central Administration and Workforce Development & Continuing Education, indicates a projected campus deficit of 439,764 NASF through 2023.

TABLE 4.15 ROCKVILLE CAMPUS COMPUTATION OF SPACE NEEDS, FALL 2023

HEGIS CODE	ROOM USE CATEGORY	NEED 2023	PROJECTED INVENTORY*	SURPLUS (DEFICIT)
100	CLASSROOM	110,515	84,827	(25,688)
200	LABORATORY	420,059	227,618	(192,441)
210	Class Laboratory	387,433	177,152	(210,281)
220	Open Laboratory	32,626	50,466	17,840
300	OFFICE	240,312	185,661	(54,651)
310-350	Office/ Conf. Room	235,678	179,026	(56,652)
320	Testing/Tutoring	4,634	6,635	2,001
400	STUDY	81,057	44,513	(36,544)
410	Study	48,550	13,612	(34,938)
420-30	Stack/Study	23,219	27,575	4,356
440-55	Processing/Service	9,288	3,326	(5,962)
500	SPECIAL USE	111,816	58,079	(53,737)
520-23	Athletic	96,680	50,345	(46,335)
530	Media Production	14,136	6,220	(7,916)
580	Greenhouse	1,000	1,514	514
600	GENERAL USE	94,241	59,391	(34,850)
610	Assembly	24,536	28,204	3,668
620	Exhibition	4,634	2,013	(2,621)
630	Food Facility	38,564	12,634	(25,930)
640	Childcare	No Allowance	No Allowance	No Allowance
650	Lounge	13,773	6,948	(6,825)
660	Merchandising	4,734	7,320	2,586
670	Recreation Space	No Allowance	No Allowance	No Allowance
680	Meeting Room	8,000	2,272	(5,728)
700	SUPPORT	56,866	16,767	(40,099)
710	Data Processing	5,326	1,360	(3,966)
720-740	Shop/ Storage	42,914	14,830	(28,084)
750	Central Service	7,768	267	(7,501)
760	Chemical Storage	858	310	(548)
800	HEALTH CARE	1,754	0	(1,754)
900	RESIDENTIAL	No Allowance	No Allowance	No Allowance
050-090	ALTERATIONS/ IND USE	No Allowance	No Allowance	No Allowance
	Total NASF:	1,116,620	676,856	(439,764)

Currently the Rockville Campus, excluding space supporting Central Administration and Workforce Development & Continuing Education, indicates a projected campus deficit of 439,764 NASF through 2023.

Source: Montgomery College

Montgomery College has two approved facility projects on this campus that are currently under construction or in design. The chart above includes these planned facilities, which include:

- A new Student Services Center
- A new North Garage

Based on the computation of space needs in Table 4.15, the Campus is projected to need an additional 439,794 NASF of space to accommodate the planned enrollment growth. Major deficits in academic and academic support space categories are projected in class laboratory, classroom, library and study and faculty/staff offices (especially for part time faculty). These needs will be specifically addressed in Section 4.5.4.

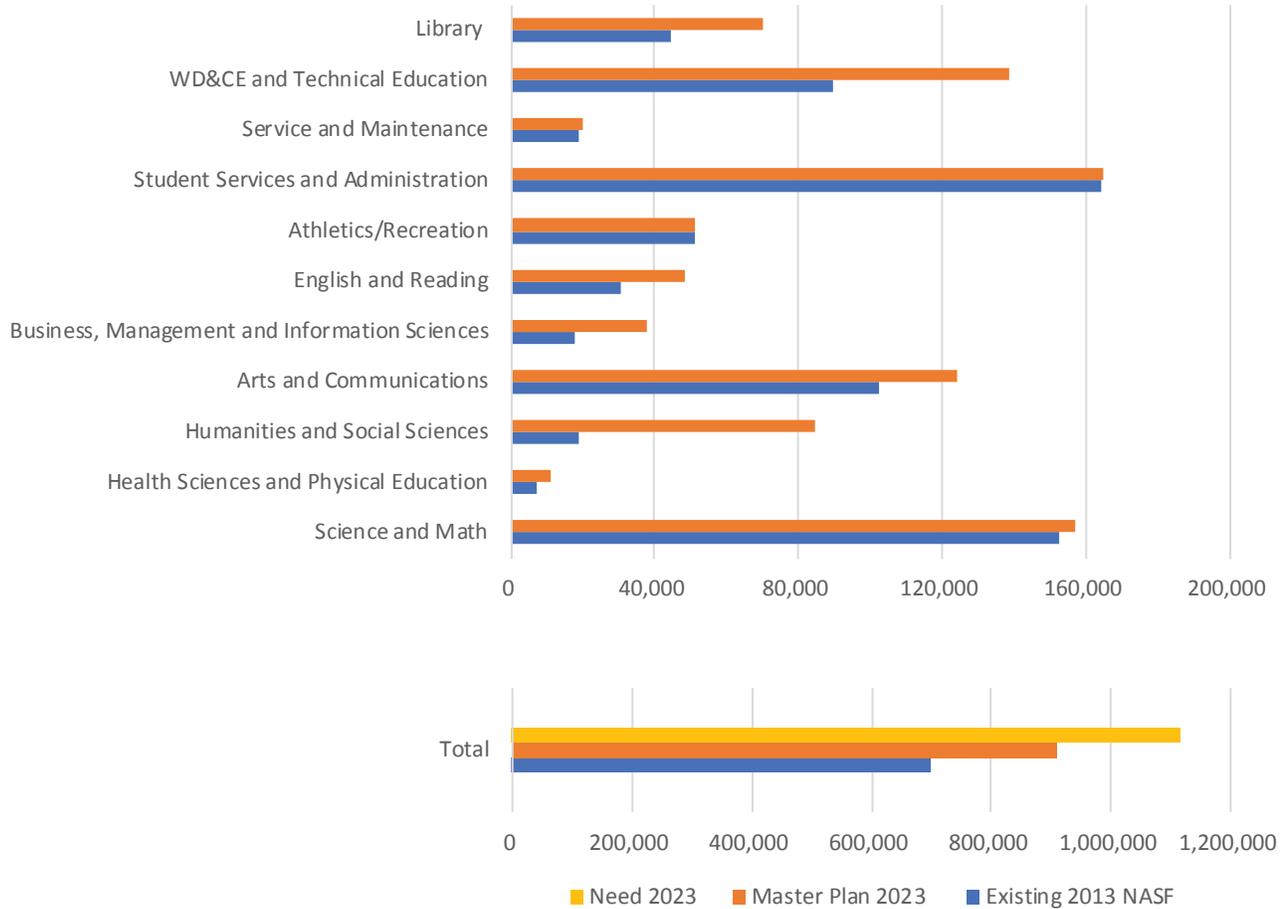
In addition to the quantitative space needs identified in this section, there are several programmatic and qualitative space issues and challenges that need to be addressed.

There is a need for more flexible classroom and laboratory space on the Campus to accommodate group based learning and collaboration that is central to supporting the desired teaching methodology. This includes providing instructional spaces with a larger student station space allocation and flexible furnishings allow for multiple configurations for small and larger groupings of students to engage and interact. It is also desired that instructional spaces include robust technology and wall writing surfaces to support in-class activities and exercises.

Redevelopment of the library facilities on each campus is paramount to the evolution of these resources into a true learning commons that provides additional and appropriately configured and equipped instructional spaces, individual and group study areas and computer stations. In addition, the introduction of faculty and staff technology rich “sand box” spaces, lounges and cafes and expanded collaboration zones are desired for the library learning commons on each campus.

The last Facilities Master Plan identified the significant challenge posed by the poor condition of older buildings. Many of the facilities that are more than 30 years old and have not been renovated have resulted in building systems that have reached the end of their useful life and are not reliable or efficient. In addition, instructional space configuration and equipment in these buildings do not adequately support the group based and collaborative learning activities desired to be incorporated into many of the academic course offerings. Academic space should be flexible to respond to and adapt to rapidly changing technological and pedagogical shifts in education, which is not the case in many of these facilities.

**FIGURE 4.15 ROCKVILLE CAMPUS PROPOSED PROJECTS
IMPACT ON PROJECTED SPACE NEEDS, FALL 2023**



4.5 FACILITIES MASTER PLAN

4.5.1 Campus Master Plan Guiding Principles

A series of guiding principles was developed to assist in the evaluation of master plan alternatives which include:

1. Develop new and renovated facilities to support academic and student programming in support of the College Mission
 - Support the College's goal of establishing and nurturing unique roles and partnerships for the Rockville Campus in meeting the educational, economic, and work force development needs of Montgomery County;
 - Provide sufficient and adequate space—classrooms, labs, offices, study, meeting rooms, and support facilities—based on existing and projected needs, so that each and every area can contribute creatively and productively in supporting students;
 - Co-locate departments and functions rationally so that students, faculty, and staff benefit from the ease, energy, and excitement generated by the synergy of proximity and to optimize functional efficiency;
 - Present students the needed range of opportunities to study and learn collaboratively in supportive environments with assistance of faculty, librarians, counselors, and staff;
 - Afford students opportunities to meet and develop socially through formal programs of leadership, recreation, and athletics, and informally in inviting indoor and outdoor spaces;
 - Maximize the use of land resources available to the Campus while retaining its unique character, quality, and setting; and
 - Invite students, faculty, staff, community members, and visitors to participate in the varied Campus and College activities by organizing the buildings, parking, outdoor athletic facilities, and circulation for pedestrians, the disabled and elderly,—to make their experience pleasant and successful.
2. Enhance Campus Gateways
 - Enhance the experience of entering a campus environment when approaching from the north and south via automobile;
 - Enhance pedestrian experience and the walkability of campus and through parking areas;
 - Site new academic buildings to further the campus gateway principle;
 - Design and locate the new Library Learning Commons so it has a major presence at the south edge of campus;
 - Design and site the new Technical Training Center so it acts as gateway building and a beacon at the north vehicular entrance to campus;
 - Design new parking structures with attractive facades, or screen them from immediate view with new buildings and landscape elements.

FIGURE 4.16 COLLEGE TOWN PLAN

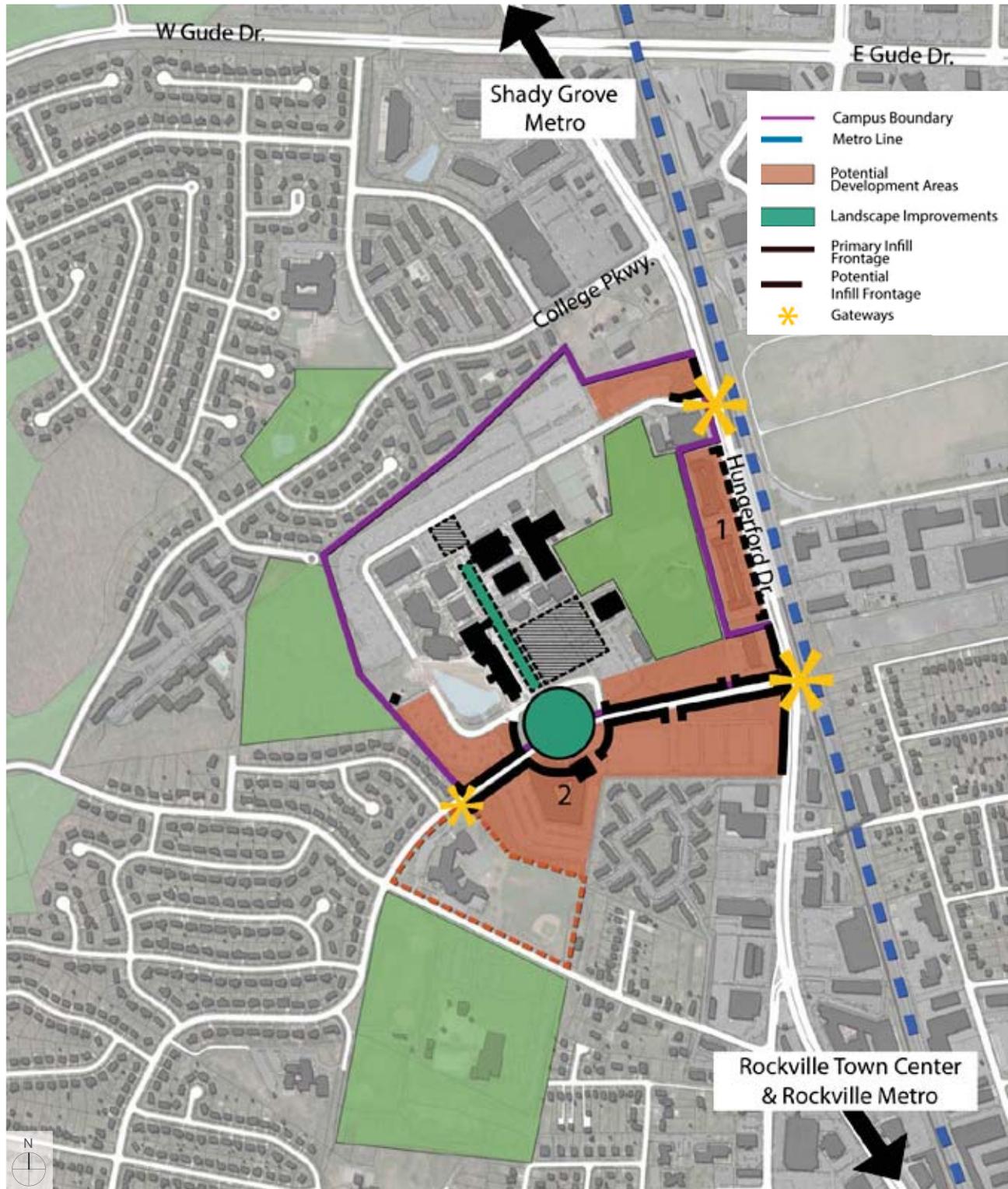


Image Not to Scale
Source: Montgomery College, College Town Plan

3. Create a hierarchical armature of outdoor space. This is described further in section 4.5.3.
4. Concentrate development on the Campus
 - Co-locate academic programs which are currently scattered throughout campus
 - Replace the existing Campus Center with a new facility that accommodates more generous cafeteria, bookstore and student activity, office and meeting spaces, in particular lobby and lounge spaces
5. Concentrate parking to allow for academic expansion
 - Construct a second parking structure at the south edge of campus in order to maximize land area for academic buildings;
 - Locate and build the next parking structure so as to reduce its apparent size and bulk. Sandwich the next parking structure between or behind buildings, design with attractive facades, or screen from campus by use of land- scape planting and/or screens along the facades;
 - Activate the parking structure along major walks with at least ground level program space;
 - Manage parking operations so that the most transient parkers are directed toward the parking structures on the north and south sides of campus, closest to the campus entries/exits;
 - Retain the general campus vehicular circulation loop.
6. Investigate opportunities for sensitive future growth off Campus
 - Develop the south side of campus to accommodate possible future acquisition of the Carver Educational Services Center - Montgomery County Board of Education Board of Education site.
7. Implement the Facilities Master Plan with regard to the sustainability and resource conservation programs of the College.
 - Extend the existing high performance central plant distribution system to new and renovated buildings on the Campus. Building designs for new and renovated facilities should be undertaken in an environmentally sensitive manner that responds to the sustainability and resource conservation programs for the College. Building designs for new and renovated facilities must seek Leadership in Energy and Environmental Design (LEED) Silver Certification at a minimum as the means of responding to this desired outcome.

4.5.2 Response to External Planning Factors

Various outside pressures impact the proposed Facilities Master Plan. Property owners in the adjacent residential developments have consistently expressed their concern over potential increased vehicular traffic, both along adjacent MD 355 intersections and along Mannakee Street. Additionally, there is concern from these same neighbors about building any structures along the west and north edges of campus, particularly parking structures. The campus has indicated they will attempt to minimize future development along the campus north and west edges. The north campus edge contains a series of high pressure natural gas mains (60 inches in diameter) which pose a significant constraint - the College cannot build along this north edge of campus and must stay outside the easement for these natural gas lines.

FIGURE 4.17 CURRENT CAMPUS PLAN



EXISTING BUILDING

- | | |
|---|---|
| <ul style="list-style-type: none"> AR Paul Peck Art Building AT Amphitheatre CB Counseling and Advising Building CC Campus Center CH Child Care Center CS Computer Science Building GU Homer S. Gudelsky Institute for Technical Education HU Humanities Building MK Mannakee Building MT Gordon and Marilyn Macklin Tower MU Music Building | <ul style="list-style-type: none"> nSV New Student Services Building NG North Garage PA Robert E. Parilla Performing Arts Center PE Physical Education Center SB South Campus Instruction Building SC Science Center SW Science West Building TA Theatre Arts Building TC Technical Center TT Interim Technical Training Center |
|---|---|

The City of Rockville is the agency having authority over forest conservation and stormwater management. The City has a bikeways master plan. The City has also recently amended its Zoning Code to allow a building height up to 75 feet for an institution of higher learning in the R-200 Zone, which will be the new zoning district for the Rockville campus, but the building heights are subject to the layback slope requirement of 30 degrees from the common property line.

Montgomery County Public Schools, the owner of the adjacent Carver Educational Services Center (CESC) property to the south of campus, has expressed interest in divesting itself of this property, provided they are able to secure alternative accommodations. Once the CESC property is available, the College has agreed to pursue acquiring it and plan for future development at that location. The property would not only add land for future buildings, but could accommodate additional parking as well.

College Town Plan

In the fall of 2014, Montgomery College, led by its Department of Advancement and Community Engagement, engaged a team led by U3 Advisors to create a College Town Plan for Montgomery College.

While some of these recommendations align with some of the goals of this Facilities Master Plan, others are infeasible or simply not recommended by this FMP. Both are noted below:

Short Term:

- Enhance gateways intersections with signage and landscape improvements at these intersections
 - o North Campus Drive and Hungerford Road;
 - o Mannakee Street and Hungerford Road;
 - o Mannakee Street and South Campus Drive.
- Implement interior signage and way finding
 - o Identify interior building spaces and outdoor spaces that could host public events;
 - o Market potential spaces to surrounding community and local organizations.

Medium Term

- Complete new open space, student service building, and infill development of surface parking lots utilizing “Town Center” principles;
- Prepare a feasibility study for building renovations;
- Renovate existing common spaces so that they are more visible from the exterior and help to activate sidewalks and the quad;
- Identify sites along the campus edge for potential acquisition.

Long Term

- Implement building renovation plans, in phases;

- If feasible, acquire properties along campus edge;
- Focus on properties along Mannakee Street. Note that while good planning principles, College priorities for this Campus may not be aligned with this particular recommendation. The preference is to maintain visibility and porosity along Mannakee Street. Further, there is a significant tree buffer lining the campus along Mannakee Street, which should be maintained;
- Pursue public-private development structures, where feasible;
- Reinforce connections to campus from Hungerford Drive with “edge” development that activates the pedestrian environment. Note that while this Facilities Master Plan agrees with the concept of developing this edge, the College would have to acquire over 90 properties along Hungerford Drive between the College’s two main entrance points, which would likely be difficult and time consuming.

4.5.3 Proposed Campus Structure and Character

Given the limited building area available, new development will likely displace existing parking lots or be built as replacement of existing, smaller and/or dysfunctional buildings. Of necessity, new development of academic buildings on existing parking lots will need to occur in conjunction with development of additional structured parking. The core campus, currently consisting of mostly low-rise buildings, will slowly become a taller and denser campus. While the central core buildings will remain fairly low (up to three stories typically), new buildings located just outside the core will be taller and larger. This will both maximize the limited building area available and allow for the development of signature buildings in key locations.

In addition to the six new buildings proposed (including a new parking structure), seven existing buildings will be renovated, and three of those will be reallocated to new use.

New buildings will be situated around the major pedestrian pathways on campus, in particular the pedestrian mall and proposed Arts Walk. Both of these are discussed below. Existing buildings will be renovated to have a direct connection to the mall and/or other adjacent pedestrian circulation paths.

Gateways and Views:

Every effort should be made to strengthen gateways and enhance views into campus proper from the perimeter parking lots. The recent construction of the Science Center helps establish a signature view into campus and up along the pedestrian mall. Proposed construction at this end of campus, including the proposed Library Learning Commons and South Garage, should be designed to strengthen this developing gateway and give the south side of campus a strong collegiate image.

Views along the north edge of campus should continue to improve with the construction of the new Student Services Center and North Garage. The new Humanities and Social Science building proposed in this FMP for the northwest corner of the core campus should maintain the views into campus between buildings and act as a gateway from that corner of the campus.

The proposed Technical Training Center, situated along North Campus Drive, presents an opportunity to create a gateway at this primary campus entry from Hungerford Drive, a major thoroughfare. Renovation of the Mannakee Building at the southeast corner of campus also offers an opportunity for a stronger presence for the campus.

Along Mannakee Street, the forest canopy could be limbed up so that views into and out of campus along this edge are reinforced, while still maintaining the tree coverage in the area.

Open Space and Streetscape

While the existing grid of outdoor spaces is ample in quantity, it is not especially pleasant and does not offer much beyond “the space between buildings.” Given the quantity of existing and proposed buildings, it is important to continue and build on the outdoor space improvements so they continue to provide an organizational armature for the campus, focused around the large north-south mall or “spine.” The mall creates a hierarchy of spaces and provides orientation and an open-space heart for the campus. While key aspects of the landscape and open space plan are listed below, a more detailed landscape master plan is required to develop these concepts into a comprehensive plan. See Figure 4.18 and 4.19.

Goals include:

- Reinforcing the main north-south mall through campus, with minor green axes in the east/west directions and major building entries located along the spine;
- Developing the Arts Walk proposed in the previous Facilities Master Plan as a key secondary axis, and improving other cross-axes, in particular the one between the Physical Education Center and Gordon and Marilyn Macklin Tower;
- Enhancing the design and use of the existing amphitheater space;
- Creating a smaller amphitheater space marking the east end of the Arts Walk, oriented toward the film-projection wall that will be part of the Robert E. Parilla Performing Arts Center addition;
- Reinforce inside/outside spaces in both new and renovated buildings, particularly at major entry lobbies, and at the mall-side of buildings;
- Allowing and encouraging views into and out of the mall from the minor axes;
- Including a variety of open/lawn type areas mixed with large shade trees, as well as more intimate outdoor spaces;
- Create a new plaza and drop-off in front of the Robert E. Parilla Performing Arts Center that will also provide access to the Arts Walk, center of campus, and service and emergency vehicles;
- Provide a pedestrian and potentially vehicular connection between Manatee Building and the central campus to the west. This tree lined connector could become the framework for future development in this area;
- Making a park setting along South Manatee Street of the existing woods so that area is more of an amenity. Increase the views into and out of this area by limbing the tree canopy and provide better access through with some seating and gathering spaces;
- Utilizing landscape elements through parking areas to reinforce pedestrian access and to screen parking lots from campus. Improving and thickening existing landscape buffers around the north and west edges of campus to screen the campus from adjacent properties;
- Simplifying site furniture throughout the campus. While the Campus has made progress, there are currently too many types of benches, handrails, cans, etc. fragmenting the open spaces. The campus should utilize simple, well designed furnishings and light fixtures located at key nodes. Site walls could also be utilized for seating. Neutral-color furnishings and fixtures should be selected; black is preferred as it becomes a background color;

- Provide a tree lined pedestrian corridor extending north from the green space fronting the new north garage to the parking areas and gate from the adjoining north apartments.

4.5.4 Proposed Building Projects

Building Projects Summary

The 2013-2023 Building and Site Concept Plan is included as Figure 4.18, which documents the proposed location, footprint and height of proposed new buildings on Campus. The 2013-2023 Building and Site Concept Plan is in response to the space needs by academic grouping documented in Figure 4.15. The 2012-2023 Landscape and Open Space Plan, shown in Figure 4.19 has been coordinated with and complements the 2012-2023 Building and Site Concept Plan.

Below is a summary description of the proposed projects recommended in the 2013-2023 Building and Site Concept Plan. These summary project descriptions, along with additional work proposed in the 2012-2023 Landscape and Open Space Plan and recommendations in the utility and information technology infrastructure, environmental and sustainability, and circulation and parking sections will be used to develop responsive capital projects that address the identified facility needs through 2023. These projects will be the basis of the Facilities Master Plan.

1. South Campus Instruction Building (16,882 NASF, 29,900 GSF)

This project involves the renovation of the building for WD&CE youth programs, and staff, plus continued function as surge space and provide renovated facilities for adjunct faculty. Since this building is projected for demolition in future development, the renovations should be kept minor.

2. Campus Center (72,960 NASF, 128,000 GSF)

This project involves demolition of the existing Campus Center and replacing it with a new four-story building. Highly active student type spaces such as the bookstore and cafeteria dining, as well as the cafeteria kitchen and servery, the Hospitality Management program, conference rooms and general purpose classrooms to support Health and other academic programs will be included. Lobby and lounge space will be situated so as to engage the pedestrian mall on the west side of the building, as well as the new Student Services building across the pedestrian mall. Inclusion of a large dividable, flexible use, instructional/meeting space for up to 500 will also be considered.

3. South Garage

This project is for construction of a new parking structure with a capacity of 900-1,000 new parking spaces. The structure is proposed at seven levels, located across from the Robert E. Parilla Performing Arts Center and adjacent to the proposed Media Arts building within Lot 11. The new Library Learning Commons is proposed to be constructed immediately after the garage is built, wrapping the north and west sides of the South Garage, and leaving just the south and east walls exposed. These elevations will be screened with plantings and architectural elements. The program development for the garage and the Library Learning Commons should be coordinated to confirm that the Library Learning Commons will work properly along the west side and north corner of the garage.

4. Library Learning Commons (70,295 NASF, 117,158 GSF)

This project is for the construction of a new 4-story Library to replace the inadequate facility currently housed on three floors in Gordon and Marilyn Macklin Tower. The building will be located at the southern end of the Campus, opposite the Science Center and serving as a “wrapper” to the new South Garage. The west side of

the building will be designed to engage the north-south mall and the new Arts Walk. The program development for the garage and the Library Learning Commons should be coordinated. The programming and design of this should be coordinated with the garage as much as possible.

5. Gordon and Marilyn Macklin Tower Renovation (44,557 NASF, 63,652 GSF)

This project involves the alteration and reconfiguration of Library space (44,557 NASF) that will be vacated with the construction of a new Library Learning Commons. The reclaimed space will be allocated for use by Academic Initiatives, expansion of the Reading and Writing Learning Center, general education classrooms for Reading and English, part time faculty and other administrative units. The renovation will also improve and/or reconfigure MEP systems, accessibility and life safety systems. The program development should consider a bridge connection to the Computer Science Building as part of the renovation. While programming, consider bridging / combining with the computer science building adjoining.

6. Technical Training Center (50,400 NASF, 84,000 GSF)

This project replaces and expands on the current Interim Technical Training Center, and also serves to consolidate the Technical Training programs and Applied Technology programs currently housed in Technical Center. The building is proposed as a low two story mass housing the high bay automotive classrooms/labs, with a four story mass fronting toward North Campus Drive. The two story building will be situated parallel to the track, and could possibly incorporate bleacher seating.

7. Media Arts Building (28,800 NASF, 48,000 GSF)

This building expands the current Art program and consolidates the Fine Arts and Communication Arts programs along the proposed Arts Walk and the Campus mall. The building will include space for Communication Arts vacated from the Technical Center, and to address existing space deficits in and an expansion of the fine and performing arts programs. Construction of this building will require demolition of the Counseling and Advising Building. The building is proposed at four stories and will include spaces for graphic design, music and art class labs, a dance studio and offices.

8. Humanities and Social Science Building (81,600 NASF, 136,000 GSF)

This new building will be built on the approximate footprint of the demolished Technical Center, and will accommodate both the Humanities and Social Science programs as well as provide general purpose classrooms. The building site design should incorporate a plaza to the pedestrian node south and east and open/green space to the south and towards the new Student Services Building.

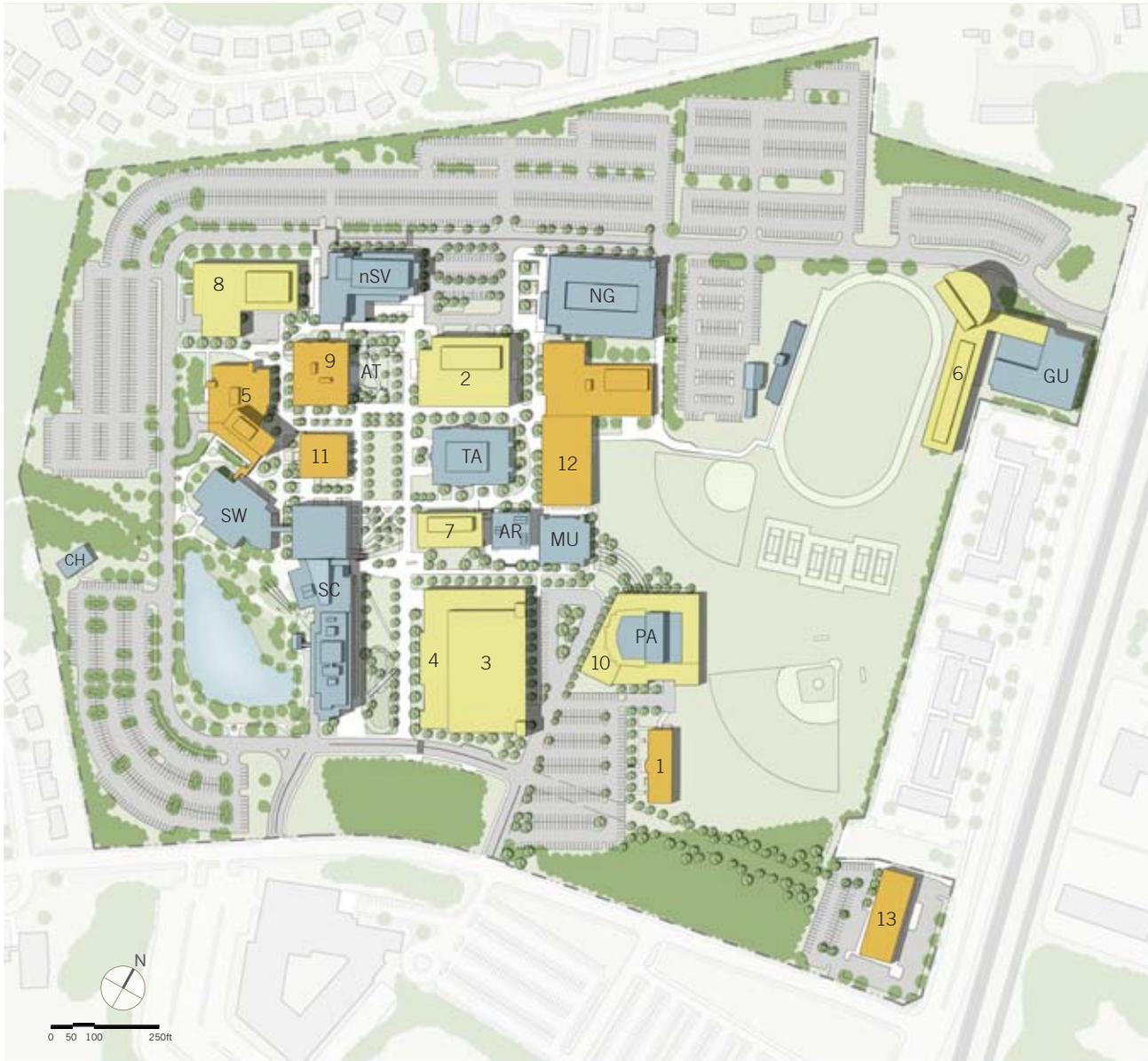
9. Humanities Building Renovation (49,368 NASF, 73,912 GSF)

Completion of the new Humanities and Social Science Building will allow for renovation of this building to expand the Macklin Business Institute, provide additional space for Business, Information Science and Management, faculty offices, and continued use of classrooms for general education classes. The renovation will also improve accessibility, life safety systems and the central ice storage facility.

10. Robert E. Parilla Performing Arts Center (16,501 NASF, 28,000 GSF existing + 17,294 NASF, 28,325 GSF addition)

This building has a strong presence in the Montgomery County community, and will undergo a two-part renovation to maximize and improve its appeal to that constituency. The renovation consists of an expansion of the auditorium and back-of-house spaces, life safety and accessibility improvements, and additions at the front, rear and sides to accommodate needed program space. The auditorium will be expanded from 500 seats up to 1,000

FIGURE 4.18 2013-2023 BUILDING AND SITE CONCEPT PLAN



- EXISTING BUILDING
- NEW BUILDING
- RENOVATION BUILDING

- AR Paul Peck Art Building
- AT Amphitheatre
- CH Child Care Center
- GU Homer S. Gudelsky Institute for Technical Education
- nSV New Student Services Building
- NG North Garage
- PA Robert E. Parilla Performing Arts Center
- SC Science Center
- SW Science West Building
- TA Theatre Arts Building

- | | | |
|---|---|--|
| <p>1 SOUTH CAMPUS INSTRUCTION BUILDING
FOR WD&CE YOUTH PROGRAMS</p> | <p>2 CAMPUS CENTER
FOOTPRINT - 32,400 GSF
TOTAL(4FL) - 128,000 GSF</p> | <p>3 SOUTH GARAGE
FOOTPRINT - 54,000 GSF
TOTAL(6FL) - 900~1000 SP</p> |
| <p>4 LIBRARY LEARNING COMMONS
FOOTPRINT - 29,300 GSF
TOTAL(4FL) - 117,158 GSF</p> | <p>5 GORDON AND MARILYN MACKLIN TOWER
RENOVATE FOR READING AND WRITING LEARNING CENTER, GENERAL CLASSROOMS</p> | <p>6 TECHNICAL TRAINING CENTER
TOTAL - 84,000 GSF</p> |
| <p>7 MEDIA ARTS BUILDING
FOOTPRINT - 12,000 GSF
TOTAL(4FL) - 48,000 GSF</p> | <p>8 HUMANITIES AND SOCIAL SCIENCE
FOOTPRINT - 34,000 GSF
TOTAL(4FL) - 136,000 GSF</p> | <p>9 HUMANITIES BUILDING
RENOVATE HUMANITIES BUILDING</p> |
| <p>10 ROBERT E. PARILLA PERFORMING ARTS CENTER ADD.
FOOTPRINT - 28,450 GSF
TOTAL(2FL) - 56,900 GSF</p> | <p>11 COMPUTER SCIENCE BUILDING
RENOVATE FOR SWING SPACE</p> | <p>12 PHYSICAL EDUCATION CENTER
RENOVATE PHYSICAL EDUCATION BUILDING</p> |
| <p>13 MANNAKEE BUILDING
RENOVATE FOR WD&CE BUSINESS USE</p> | | |

seats, with the addition of a balcony, upper level lobby and ancillary spaces. The dressing rooms, loading dock and storage spaces will be renovated, and an addition will be built to house meeting rooms, conference center and catering kitchen. The stage fly system will also be replaced as part of this project.

The additions will wrap the existing building and be designed to respond to their immediate context: the front, or west elevation, will respond to the proposed plaza/road reconfiguration; the north elevation will respond to the proposed Arts Walk and amphitheater at the end of the Arts Walk, while the others will include loading dock and service space.

11. Computer Science Building (12,661 NASF, 20,900 GSF)

This building will be renovated. Classrooms, computer laboratories and offices will be refurbished and continue to provide support to all academic disciplines, general student support and swing space. The main entry will continue to be located on the east side of the building so as to connect to the mall. The program development should consider a bridge connection to Gordon and Marilyn Macklin Tower.

12. Physical Education Center and Outdoor Facilities (58,431 NASF, 84,949 GSF)

This project consists of a renovation of existing spaces including a fitness center, weight rooms, locker rooms, academic labs and support spaces for intercollegiate teams. Redevelopment and repurposing of the pool should be considered. Outdoor facilities will be reconfigured, including possibly shifting the baseball field to accommodate the relocation of the soccer field with artificial field turf and other amenities on the site of the existing baseball field. The softball field is new and in good condition.

13. Mannakee Building (34,359 NASF, 42,102 GSF)

This building will be renovated and reallocated to Workforce Development & Continuing Education for administration functions and business training and for adjunct faculty offices.

4.5.5 Proposed Pedestrian and Bike Circulation

Improve the main pedestrian connections through the center of the Campus to provide for increased pedestrian traffic. Complete the concrete sidewalks to provide continuous sidewalks for pedestrians.

Pedestrian-vehicle conflicts result from pedestrians crossing North and West Campus Drives to and from the parking lots outside the loop road. Pedestrian safety can be promoted in the following ways:

- Channel pedestrians to a limited number of highly visible, well marked crosswalks. On the parking lot side, this should be done within the lot since there is no sidewalk along the parking lot side of the Campus Drives. Vertical features such as an archway or simple wayfinding feature would help parkers identify and navigate within the lot from their parked car to the nearest crosswalk;
- Use 'Yield to Pedestrians in Crosswalk' signs on the loop road;
- Use traffic calming measures on the loop road to reduce vehicle speed.

The access to the Capital Bike Share station should be regraded and widened by Capital Bike Share in accordance with their Memorandum of Understanding with the College at the Capital Bike Share program's expense.

Regarding pedestrian and bicycle access to local streets, it is important for the College to be responsive to the legitimate concerns of neighbors that have resulted in a closed perimeter fence. At the same time, the closed access points should be kept on campus planning maps and recognized as a possible future opportunity for pe-

destrian and bicycle access. Individuals and circumstances change over time, so the issue could be revisited in a future FMP update. A bicycle route between College Parkway and campus is proposed for study by the City of Rockville Bicycle Master Plan.

Montgomery College should continue to support the City of Rockville's efforts to implement its Bicycle Master Plan.

4.5.6 Proposed Vehicular Circulation and Parking

This section presents a generalized assessment of the Facilities Master Plan from a parking and access perspective. As noted in earlier sections, the plan proposes several land use initiatives for the 2023 horizon period. The key proposals and potential transportation impacts and needs associated with those changes are discussed and evaluated below.

Vehicular Circulation

A traffic study conducted in 2014 found that intersections of campus access drives and public streets would operate acceptably with construction of the North Garage. It found that the intersection of MD 355 and Mannakee Street experiences delays and long queues on southbound MD 355 and on eastbound Mannakee Street during peak hours. A new South Garage will trigger a new traffic study. It is anticipated that additional traffic to the South Garage may require right-turn lanes for westbound traffic on Mannakee Street at the two intersections with the campus drives. This may require the widening of Mannakee Street between MD 355 and the western end of the Campus.

A realignment of the western campus entrance from Mannakee Street should be considered to eliminate the skew and provide a better design for the internal intersection of the entrance with West Campus Drive and South Campus Drive. A revised alignment is shown in Figure 4.20 2023-2033 Land Use Plan.

Circulation on South Campus Drive between the east and west drives to Mannakee Street may need to be revised in order to provide an improved transit stop, as discussed in the Transit section.

A convenient drop off/pickup location is needed to serve the 10% of students that are dropped off. This drop off might be incorporated into the design of Lot 4. Consideration must be given to the impact of a possible future school bus depot of 100 MCPS buses within parking Lot 13 on Mannakee Street.

Parking Demand Management

The College realizes that parking demand will continue to grow as enrollment increases. Encouraging greater use of public transit is a strong desire on the part of the College. Further, the Rockville Campus can encourage greater use of the City of Rockville bike paths that abut the Campus. In addition to encouraging increased use of public transit and bicycling, the College is looking at ways to reduce parking demand. The College is also planning to work with the County to coordinate their plans for a new Bus Rapid Transit (BRT) route that will be routed near campus. Neither the route nor the stop locations for the BRT are certain and the project may not come to fruition.

Parking

- The parking requirement for the 2023 campus population according to MHEC standards is 7,576 spaces;
- An alternative method for calculating the 2023 parking requirement is described in section 4.2.5;
- The existing net parking supply, after loss of remote Lot 13, reduction in size of Lot 4 with the new Student Services Building, and completion of the North Garage, is 3,794 spaces;

FIGURE 4.19 2013-2023 LANDSCAPE AND OPEN SPACE PLAN



- NEW COURTYARDS AND KEY AREA
- EXISTING KEY AREA
- PRIMARY CAMPUS PEDESTRIAN PATH
- SECONDARY CAMPUS CIRCULATION AXIS
- MAJOR BUILDING ENTRANCE
- FOREST CONSERVATION EASEMENT
- STUDENT WALKING RADIUS

- AR Paul Peck Art Building
- AT Amphitheatre
- CH Child Care Center
- GU Homer S. Gudelsky Institute for Technical Education
- nSV New Student Services Building
- NG North Garage
- PA Robert E. Parilla Performing Arts Center
- SC Science Center
- SW Science West Building
- TA Theatre Arts Building

- 1 Pedestrian mall / major circulation axis
 - a. Lawn
 - b. Stormwater educational landscape
- 2 Hardscape / plaza
- 3 Arts walk
- 4 Arts plaza
- 5 Amphitheater
- 6 Enhance parking area with trees and landscaping
- 7 Extend pedestrian axis through parking lot with trees, pedestrian path and landscaping
- 8 Create tree-lined pedestrian path

- The ten year change in parking supply resulting from the projects indicated in the proposed Facilities Master Plan includes loss of Lot 11 (325 spaces) and loss of an estimated 45 spaces in Lot 12 for construction of the South Garage, Library Learning Commons and the Robert E. Parilla Performing Arts Center addition;
- The resulting 2023 parking supply, not including new spaces in the South Garage, is 3,424 spaces. Compared with the 2023 parking requirement, the deficit is 4,152 spaces using the MHEC standards and 1,044 spaces using the alternative parking requirement;
- The South Garage is proposed to provide 900 - 1,000 new spaces in a seven-story structure. The new drop off loop between the garage and the Performing Arts Center can provide approximately 25 spaces;
- In summary, using MHEC ratios, the 2023 parking requirement (demand) is for 7,576 parking spaces. With a 2023 parking supply of 4,400 spaces, including 950 spaces in the new South Garage, that leaves the campus with a 2023 deficit of approximately 3,176 spaces.

TABLE 4.16 ROCKVILLE CAMPUS PARKING TRIGGERS

Phase	Action	Impacted Lot	Existing Spaces	Change in Spaces	Campus Total	Overall Net Change
	Completion of existing scheduled projects				3,794*	
1	South Campus Instruction Building	NA	---	---	---	---
2	Campus Center	NA	---	---	---	---
3a	South Garage construction	Lot 11	325	-325	3,444	-350
		Lot 12	245	-25	---	---
3b	South Garage Drop-off Loop	NA	---	975	4,419	625
4	Library Learning Commons	NA	---	---	---	---
5	Gordon and Marilyn Macklin Tower Renovation	NA	---	---	---	---
6	Technical Training Center	NA	---	---	---	---
7	Media Arts Building	NA	---	---	---	---
8	Humanities and Social Science Building	NA	---	---	---	---
9	Humanities Building	NA	---	---	---	---
10	Robert E. Parilla Performing Arts Center Addition	Lot 12	---	-20	4,399	605
11	Computer Science Building	NA	---	---	---	---
12	Physical Education Center and Outdoor Facilities	NA	---	---	---	---
13	Mannakee Building	NA	---	---	---	---

*Includes loss of Lot 13.

4.5.7 Transit Recommendations

The Rockville campus has good local bus services with three local bus routes providing very frequent bus services. A high level of transit mode share has been achieved through the Montgomery College Transit Pass program that allows Montgomery College students to use the Ride On bus service free of charge. Without assuming the

cost and management burden of expanded transit services, Montgomery College should continue to support and promote transit commuting and carpooling. Specific recommendations applicable to the Rockville Campus are:

1. Work with the Montgomery County Department of Transportation Division of Transit Services (Ride On) to come up with a solution to relocate some of the bus stops along Mannakee Street, while still maintaining convenient access for workers at the Carver Educational Services Center. These stops are very close to the main campus stop and contribute to traffic congestion and pedestrian safety conflicts;
2. Work with the Montgomery County Department of Transportation Bus Stop Improvement Program to relocate and improve the main campus bus stop to provide adequate facilities for waiting customers and minimize pedestrian vehicular conflicts. Moving the bus stop to the north side of South Campus Drive and reversing the direction of bus circulation on the South Campus Drive loop would eliminate the need for Rockville Campus bus passengers to cross the street;
3. Continue to monitor the possible development of a future BRT route and stops on 355 for impact to and benefit of the Campus;
4. Conduct annual staff Commuter Surveys through the Montgomery County Commuter Services program;
5. Participate in Metro's SmartBenefits Transit Benefits Program;
6. Promote transit and ridesharing options for students during fall and spring semester registration;
7. Establish and maintain a Montgomery College Ridesharing App similar to the Montgomery County Community College, Pennsylvania program that can be found at <https://www.zimride.com/mc3/>;
8. Provide priority parking for carpools and vanpools;
9. Develop specific transit wayfinding maps and signs on the Campus that guide new students, visitors and occasional transit users to available transit services. These transit wayfinding maps should show bicycle and pedestrian routes along with local and regional transit services. The transit wayfinding maps may be incorporated into existing wayfinding maps. The transit wayfinding graphics should be updated regularly and posted in gateway locations, key buildings and on the Montgomery College website;
10. The Office of Facilities - Transportation webpage should be updated to provide transit, bicycling and carpooling maps and information that are tailored to each campus so that faculty and current and prospective students can easily identify alternative transportation services.

4.5.8 Major Utility Recommendations

Coordinating future utility infrastructure is an integral part of a successful campus planning process. The College's Utilities Master Plan was prepared to optimize the use of utility resources while minimizing potential disrupts, as well as costs. As part of this planning process, the 2012 Utilities Master Plan for the Rockville Campus was reviewed to determine the adequacy of existing systems and to determine the potential for future expansion. As the current Facilities Master Plan is implemented there will be a series of on-going evaluations and analyses undertaken to determine a more complete picture of the utility and information technology infrastructure impacts.

The separate Utilities Master plan for this campus completed in 2012 includes an overview of the existing Campus utility and information technology infrastructure as well as a detailed assessment of their condition and ability to meet future demand.

Mechanical

The existing heating water plants have adequate capacity to meet current demands, but will need to be expanded to meet future demand as the campus grows by expanding the Science Center heating plant and providing a new heating plant in the new Student Services Building to replace the plant in the Humanities Building and increase overall capacity. Further in the future, a new satellite heating plant will be required in the new Library Learning Commons building. The Campus heating mains will be extended to new building sites as those buildings are constructed. The natural gas system provided by Washington Gas is adequate to meet current demand, but a new gas service will be required to support new heating plants in the Student Services Building and Library Learning Commons in the future.

The existing chilled water and ice storage plant in the Humanities Building has adequate capacity for the current cooling demands when combined with the capacity of the cooling plant in the Science Center, but will need to be expanded to meet future demand. The Science Center chilled water system was connected to the Campus distribution loop during the Science East Building renovation. A new chilled water plant will be installed in the new Student Services Building to replace the aging chilled water plant in the Humanities Building and increase overall capacity. Further in the future, a new cooling plant will be required in the new Library Learning Commons to provide additional cooling as the campus grows. District cooling mains will be extended to new building sites as those buildings are constructed.

The most significant remaining mechanical issue is the age of many of the HVAC systems in existing buildings, many of which were constructed in the 1960's and 1970's and which are reaching their expected life and rely on older technology. Mechanical systems should be replaced with more efficient buildings as the buildings they serve are renovated as part of the Facilities Master Plan.

Future renovations should target LEED Gold Certification to achieve a high level of cost effective energy efficiency, and must achieve LEED Silver Certification at a minimum. Energy benchmarks should be established for each major building compared to equivalent, energy efficient buildings to document potential savings that could be achieved with systemic renovation of HVAC and electrical systems. The results of the benchmarking effort will assist allocation of capital resources to renovation of buildings with the greatest potential for energy savings.

Electrical

The existing Pepco feeders have adequate capacity to accommodate planned campus expansion. The existing 13.2 KV overhead medium voltage lines will be extended to serve new pad mounted step down transformers for new buildings in the future.

Civil

The majority of the proposed improvements will not impact major utilities. Depending on the actual field location, the 4" gas line located east of the Science Center may be impacted by construction of the combined Library Learning Center and South Garage. In addition, the chilled and hot water supply/return lines in the vicinity of the Performing Arts Center will likely be impacted and require relocation. Careful coordination will be required during construction to minimize disruption to service during any relocation of utilities.

- 1. Campus Center** – The 32,400+/- SF footprint is proposed to largely, if not entirely, overlap the footprint of the existing Campus Center. For this reason there should be no major utility impacts or relocations required for this project.
- 2. South Garage** – The garage proposes a conceptual footprint of 54,000+/- SF and is also proposed to be directly adjacent to the Library Learning Commons with a footprint of 29,300+/- SF. The construction of both of these projects is proposed within an existing parking lot but would likely require the relocation of both an 8" sanitary main and an 8" domestic water main.

3. Technical Training Center – The proposed 84,000+/- SF footprint of this building would require the likely relocation of a 12” domestic water main. The footprint also appears to impact existing electric and communications lines in this area of the campus.

4. Media Arts Building – The 12,000+/- SF footprint of this building is proposed to fall within the approximate footprint of the existing Counseling and Advising Building, which lends to minor, if any, utility impacts. Storm drain piping along the south edge of the building will likely need to be relocated but the site appears to be free of any other utility impacts.

5. Humanities and Social Science – This 34,000+/- SF footprint is proposed to replace the existing Technical Center at the northwest corner of the campus. Once again, falling in place of an existing building greatly diminishes the chances of impacting existing utilities, and at this point in the planning process this building appears to have no major utility concerns.

6. Robert E. Parilla Performing Arts Addition – This 28,450+/- SF addition to the existing PA building could have several major utility impacts. Available survey information indicates a possible impact to and relocation of an existing 24” storm drain pipe located just east of the existing building, campus steam lines (4-pipe system) is also located in this area, though possibly far enough away from the existing building to avoid conflicts. On the north side, relocations of existing domestic water and sanitary lines will be necessary.

4.5.9 Information Technology Recommendations

The main point of presence (MPOP) for the campus is currently the Humanities Building. Each of the existing buildings is connected via a ductbank system back to Humanities, and is fed with optical fiber cabling. The addition of new buildings in the FMP will require extending the ductbank system from the nearest available telecommunications manhole to the new building location. Seven (7) new buildings are planned for the Rockville Campus, and will require sitework/infrastructure to be extended as follows:

TABLE 4.17 ROCKVILLE CAMPUS INFORMATION TECHNOLOGY DUCTBANK RECOMMENDATIONS

Bldg #	Name	Ductbank	Fed From
8	Humanities + Soc. Science	Four (4) 4" Conduits	Existing Humanities
2	Campus Center	Four (4) 4" Conduits	Existing Humanities
7	Media Arts Building	Three (3) 4" Conduits	Manhole at Theatre Arts Building
6	Tech Training Center	Five (5) 4" Conduits	GU Building
9	PA Addition	N/A	Fed from Existing PA
4	Library Learning Commons	Four (4) 4" Conduits	Manhold near Science Center
3	South Garage	N/A	Connected to Bldg 4

The College is currently in the process of completing a New IT Master Plan, addressing major issues such as a transition to Cloud Based services in lieu of campus data centers. If and when this transition occurs, the existing data centers will be abandoned and repurposed. Typical building telecom rooms will need to be slightly larger than in the past. Connectivity requirements between buildings will remain unchanged.

4.5.10 Natural Systems and Sustainability Recommendations

Stormwater Management (SWM)

The existing stormwater pond is adequate to serve the quality and quantity needs of the Campus for all projects proposed in the 2016 to 2026 period that are located within the pond's drainage area. For projects outside of the pond's drainage area, stormwater management requirements will need to be reviewed and coordinated with the City of Rockville. The existing pond, however, does not meet the requirements for Environmental Site Design (ESD). To meet these requirements, each project moving forward should make a conscientious effort to maximize the use of green roofs while also striving to provide open spaces adjacent to any proposed buildings for small-scale stormwater practices such as a planter boxes for micro-bioretenion. A retrofit of existing parking lots to provide additional ESD SWM practices may become necessary as open space becomes more limited within the campus' center. It is recommended that the College work with the City of Rockville to develop and agree upon an overall plan for all future campus development as currently interpretation of codes and project requirements appear to vary.

All existing storm drain systems should be analyzed to determine if any of the storm drain systems will need to be upsized to accommodate drainage pattern modifications.

Forestation Update

Future development of the campus will require addressing forest conservation requirements of the City of Rockville. As future projects cause land disturbance totaling 50% of the acreage of the campus (approximately 43.29 acres), a forest conservation plan must be completed for the entirety of the 86.58 acre campus. Until that threshold is crossed, forest conservation requirements will be addressed by each individual project. A portion of this requirement has been addressed with previous development projects (Science Center, Tennis Courts/Parking Lot, Science West Building, and Parking Garage). Approximately 28,300 square feet of forest is protected by forest conservation easement below the stormwater management facility outfall on the western edge of the campus. Approximately 105,792.75 square feet of critical root zone credit and 8,400 square feet of landscape credit have been provided to date. Total forest conservation credit provided to date is approximately 142,492.75 square feet, or 3.27 acres. 218 replacement trees, for the development projects mentioned above, have been provided to date.

Additional critical root zone credit can be provided by the tree stands on the southeastern portion of the campus. The exact amount of available critical root zone credit in these areas is unknown at present, but could be quantified by a field survey of each stand. Critical root zone credit may also be taken for individual trees in the landscape.

In addition to forest conservation requirements, significant tree replacement requirements will need to be addressed for each individual project. The exact number of required replacement trees will be different for each project, however the replacement requirements are shown in Table 4.18 (example calculations for the central portion of the campus are shown in parenthesis):

Sustainability and Smart Growth

The Facilities Master Plan for the campus evokes Smart Growth philosophies of renovation of existing structures and when not possible, intensification of development on existing parcels. The campus remains compact and intensely developed, and walkability is emphasized in the design of all buildings.

TABLE 4.18 ROCKVILLE CAMPUS TREE REPLACEMENT REQUIREMENTS

Size of Significant Tree Removed	Minimum 2-1/2" Caliper Tree Replacement
12-18" d.b.h.	1 tree (90 trees removed = 90 replacements req.) greater
than 18-24" d.b.h.	2 trees (50 trees removed = 100 replacements req)
greater than 24" d.b.h.	3 trees (10 trees removed = 30 replacements req.)
Replacement of a specimen or champion tree	6 trees

Source: City of Rockville

In addition, all new structures will strive to meet the LEED silver rating for new construction and renovations. Strategies for increasing the sustainability of the new facilities include:

- Incorporating innovative waste water technologies;
- Reducing building water use through high-efficiency fixtures and collection / reuse of stormwater;
- Optimizing energy performance of buildings, through cost effective energy efficient measures including on-site renewable energy, high-efficiency lighting and HVAC systems;
- Connecting to existing high performance central plants for energy efficiency, demand management, and economies of scale;
- Incorporating sustainable construction waste management;
- Building with materials with recycled content, manufactured regionally, and/or manufactured using renewable resources;
- Maintaining healthy environments through increased ventilation, thermal comfort and clean air; and
- Providing interior spaces with daylight.

Site based strategies for increasing the sustainability of the new facilities include:

- Creating density of structures leaving land for open space;
- Including selection of appropriate native or adapted plant materials requiring minimal or no irrigation;
- Creating and maintaining habitats that promote biodiversity;
- Managing stormwater quality and quantity through green roof systems and rain gardens;
- Reducing the heat island effect by providing trees for shading paved surfaces and by using open grid or light-reflective material for hardscape;
- Creating cool roofs by using high-reflective roofing materials in conjunction with green roof systems; and
- Limiting light pollution with dark sky fixtures.

4.6 IMPLEMENTATION

4.6.1 Projected Costs

An estimate of project costs for the design, construction and furnishing of the various projects included in the 2013-2023 Facilities Master Plan is illustrated below. See Table 4.19 Rockville Cost Estimate Summary.

4.6.2 Project Sequencing

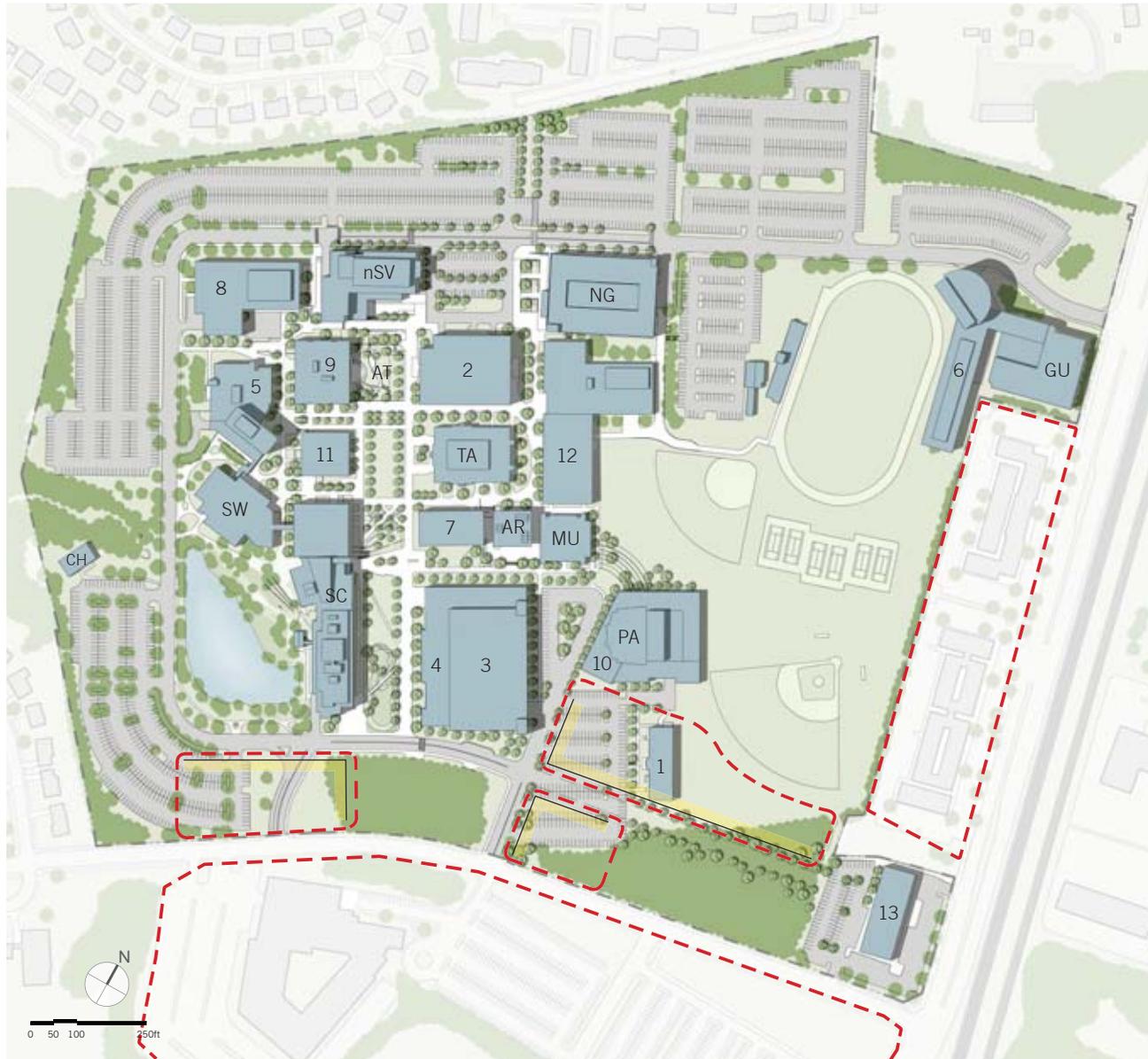
Project sequencing is identified in Figure 4.18 with building projects numbered according to their proposed sequence.

4.6.3 Land Use Plan 2023-33

This Facilities Master Plan also takes a look at a time beyond the planning year 2023 and proposes some strategies for managing growth in the future on this campus. See Figure 4.20 2023-2033 Land Use Plan. Five key strategies are proposed:

1. On the campus proper, continue to building larger, taller buildings at the perimeter of the core campus as proposed in this Facilities Master Plan for the 2023 period.
2. Increase the density of buildings at the south edge of campus by extending South Campus Drive to the Mannakee Building giving it a much stronger connection to the core campus. This extension provides the opportunity for new buildings to be built between the South Campus Instruction Building and the new Library Learning Commons, as well as along the South Campus Drive extension. An additional building site is proposed south of the Science Center, which would be ideally suited to strengthen the connection to the south. New buildings that extend the campus to the south at the entrances also act as gateways to the campus from Manakee.
3. Acquire the Carver Educational Services Center property across Mannakee Street and expand the campus to the south. As part of this strategy, extend the pedestrian network and mall towards Mannakee.
4. Demolish outdated, small, low buildings in the core campus and build taller (three to four stories) buildings in their place. Take care not to dwarf open space.
5. Consider demolition of outdated buildings which received a high FCI rating as described in Table 4.11.

FIGURE 4.20 2023-2033 LAND USE PLAN



EXISTING BUILDING

POTENTIAL EXPANSION OPPORTUNITY

— — PROPOSED FUTURE ROAD

- AR Paul Peck Art Building
- AT Amphitheatre
- CH Child Care Center
- GU Homer S. Gudelsky Institute for Technical Education
- nSV New Student Services Center
- NG North Garage
- PA Robert E. Parilla Performing Arts Center
- SC Science Center
- SW Science West Building
- TA Theatre Arts Building

- 1 SOUTH CAMPUS INSTRUCTION BUILDING
- 2 CAMPUS CENTER
- 3 SOUTH GARAGE
- 4 LIBRARY LEARNING COMMONS
- 5 GORDON AND MARILYN MACKLIN TOWER
- 6 TECHNICAL TRAINING CENTER
- 7 MEDIA ARTS BUILDING
- 8 HUMANITIES AND SOCIAL SCIENCE
- 9 HUMANITIES BUILDING
- 10 ROBERT E. PARILLA PERFORMING ARTS CENTER
- 11 COMPUTER SCIENCE BUILDING
- 12 PHYSICAL EDUCATION CENTER
- 13 MANNAKEE BUILDING

TABLE 4.19 ROCKVILLE COST ESTIMATE SUMMARY

PROJECT DESCRIPTION	TYPE	EXISTING 2013 GSF	MASTER PLAN 2023 GSF	GSF CHANGE	TOTAL COST/GSF	TOTAL COST
1. SOUTH CAMPUS INSTRUCTION BUILDING	RENO	29,900	29,900	0	\$277.76	\$8,305,024
2a. CAMPUS CENTER	NEW	0	128,000	128,000	\$421.97	\$54,011,994
2b. EXISTING CAMPUS CENTER	DEMO	74,300	0	(74,300)	\$15.00	\$1,114,500
3. SOUTH GARAGE	NEW	0	900 sp.	900 sp.	\$247.96	\$34,144,175
4. LIBRARY LEARNING COMMONS	NEW	0	117,158	117,158	\$374.00	\$48,817,356
5. GORDON AND MARILYN MACKLIN TOWER	RENO	63,652	63,652	0	\$275.12	\$17,511,728
6. TECHNICAL TRAINING CENTER	NEW	0	84,000	84,000	\$386.26	\$32,445,600
6a. INTERIM TECHNICAL TRAINING CENTER	DEMO	9,360	0	(9,360)	\$15.00	\$140,400
7. MEDIA ARTS	NEW	0	48,000	48,000	\$381.13	\$18,294,000
7a. COUNSELING AND ADVISING	DEMO	17,696	0	(17,696)	\$15.00	\$265,440
8. HUMANITIES AND SOCIAL SCIENCE	NEW	0	136,000	136,000	\$470.87	\$64,038,728
8a. TECHNICAL CENTER	DEMO	55,908	0	(55,908)	\$15.00	\$838,620
9. HUMANITIES BUILDING	RENO	73,912	73,912	0	\$272.11	\$20,112,369
10. ROBERT E. PARILLA PERFORMING ARTS CENTER	RENO/ADD	28,000	56,325	28,325	\$482.52	\$27,177,838
11. COMPUTER SCIENCE BUILDING	RENO	20,900	20,900	0	\$311.13	\$6,502,523
12. PHYSICAL EDUCATION CENTER	RENO	84,949	84,949	0	\$266.88	\$22,671,189
13. MANNAKEE BUILDING	RENO	42,102	42,102	0	\$354.38	\$14,919,896
TOTAL						\$366,311,380

FIGURE 4.21 2013-2023 AERIAL VIEW





