FACILITIES MASTER PLAN
2012 - 2022
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SUMMARY

Graphic S.1
Iconic UMUC Cupola,
Inn & Conference Center, Adelphi
UMUC initiated its Facilities Master Plan [FMP] process in 2012 with an interest in looking at how people will want to work in the future. Technology has made non-traditional working arrangements not only possible, but desirable, for both employees and employers. In the same way that UMUC used technology to become a pioneer in delivering education in a non-traditional way, through on-line learning, it intends to be a pioneer in how faculty and staff will “come to work” in the future.

The traditional approach to developing a FMP is to calculate the growth in students, faculty, and staff and apply that to a formula that determines the additional square footage needed to accommodate that growth. UMUC of course looked at expected growth, but we asked ourselves: If we worked differently, how might that impact our future space needs? We are excited by our findings. This FMP provides a roadmap that calls for converting our mostly traditional space configurations into more versatile, efficient, and desirable configurations that accommodate a different way of working. At the same time, this plan calls for fully embracing more flexible and alternative working schedules, locations, and options that we believe will serve many other purposes as well.

INTRODUCTION

Since its inception in 1947, the University of Maryland University College [UMUC] has served the needs of working adults and members of the US Armed Forces [USAF] seeking a post-secondary degree. With nearly 100 bachelor’s and master’s degrees, conducted through online asynchronous coursework, UMUC is a world leader in online education. Of UMUC’s 97,001 worldwide students in 2012, 64,127 students were stateside. This represents 25,099 full-time equivalent [FTE] students, of which 69% were undergraduate and 31% graduate.

In 2012 UMUC initiated a FMP for all of its stateside owned and leased facilities. Recognizing its unique model among more traditional institutions, UMUC required a master plan that addressed how the University works and learns as much as where it works and learns. To embark upon the process, the University and the FMP planning team reached out to a broad cross section of stakeholders representing academic, administrative, shared governance, and technology constituencies. The FMP process utilized a range of tools including user group interviews, surveys, and benchmarking tours of some of the Washington/Baltimore metropolitan region’s best workplaces. These stakeholders and contributors expressed a common desire for environments that are innovative, collaborative, and sustainable.

University FMPs typically focus on places for learning, study, student life, and administration. However, because the majority of UMUC’s course offerings are conducted online, it is the work environment for core faculty and staff that constitutes the majority of UMUC’s physical
SUMMARY

assets and is therefore the focus of the University’s FMP. It is how UMUC’s employees work and interact that drives the analysis and recommendations of this plan.

Existing Facilities

In 2012, UMUC owned 494,565 net assignable square feet (NASF) (excluding the hotel building) of space at its main facilities in Adelphi (adjacent to the University of Maryland College Park campus), University Center, and Largo (located approximately 20 minutes south on the Beltway). UMUC leases an additional 40,915 gross square feet (GSF) at four satellite facilities including Dorsey Station, Waldorf Center, the Universities at Shady Grove, and Quantico. UMUC also utilizes a significant number of classrooms in the evening at the University of Maryland College Park (UMCP).

UMUC has made significant investments in almost all of its facilities in recent years, including a full renovation of the Academic Center at Largo, Largo 2, the Administration Building, and the Inn & Conference Center (ICC). Not only have these investments kept the buildings aesthetically current, they have also introduced key programmatic improvements. In particular, a greater emphasis has been placed on “open” environments and mixed “neighborhoods” of reconfigurable workstation systems and private offices.

Growth Projections

A clear understanding of UMUC’s growth projections is critical to the development of strategies and recommendations within the FMP. After a period of tremendous growth over the last 10 years, UMUC anticipates a continued growth of 31% in student enrollment from 2012 to 2022. Total full-time equivalent (FTE) enrollment stateside is expected to grow from 25,099 in fall 2012 to 32,819 in fall 2022 (per material generated by UMUC’s Office of Institutional Planning, Research and Analysis, and material provided to the Maryland Board of Regents). It is anticipated that 90% of these students will be enrolled in online-only courses.

Regarding employee projections, UMUC expects to have 276 FTE on-campus faculty members by 2022, representing an increase of 21% from 228 in 2012. The number of FTE staff is projected to grow to 1,289 by 2022, comprising an increase of 19% from 1,079 in 2012.
Space Needs

Because UMUC is primarily a virtual university, it requires a fraction of the space required by a comparably sized traditional university. Rather than being driven by student enrollment numbers, UMUC’s space needs are driven by the size of its work force.

PLANNING DRIVERS

Over the course of the FMP process, UMUC leadership has clearly stated its priority to become a recognized leader in sustainable practices among its peers. To be a leader in sustainable practices, this University must not only address environmental sustainability, but also institutional sustainability. Therefore, rather than propose a physical solution to meet UMUC’s increased space needs, the FMP recommends behavioral change strategies related to scheduling, and the flexible use of time and space as the best way to manage growth, be sustainable and improve satisfaction.

To be a Leading Sustainable Institution

As a guideline for facilities planning, the State of Maryland’s PlanMaryland has outlined the State’s policies for sustainable growth. The plan sets forth guidelines for future development with the intent to limit urban sprawl and preserve agriculture and natural wildlife areas within the state. UMUC’s Climate Action Plan 2050 [CAP 2050] advances PlanMaryland’s goals by aiming for UMUC to achieve carbon neutrality by 2050. The FMP further advances both of these plans by avoiding new construction and reducing travel.
emissions. Highlights of the FMP sustainability initiatives include:

- Prioritizing behavioral change as the first method of responding to growth
- Avoiding new construction
- Locating working and learning facilities where people already live; reducing commutes and emissions; utilizing the proposed “Purple Line”

To be an Employer of Choice

UMUC recognizes that it must compete for high quality recruits in a region where the best and brightest can be selective about employment. UMUC also recognizes that its campuses in Adelphi and Largo are not easily accessible for many people in the Washington/Baltimore metropolitan region (due to traffic, congestion, etc.). Therefore, the University must compete on other grounds by improving the numerous qualitative measures for which public institutions can often out-compete private-sector employers. Specific goals include:

- Reducing commuting stress through effective use of remote-working
- Improving employee productivity through greater freedom in work/personal schedule and technological support
- Creating better physical work environments, from solitary to collaborative, that support the varied needs of UMUC employees and their tasks (see Graphics S.4 and S.5)

STRATEGIC RESPONSES

The above planning drivers are implemented according to the FMP’s Strategic Responses, which provide UMUC with flexible alternative strategies for the institution’s 10 year future. The Strategic Responses are primarily based on space needs for faculty and staff, and are structured in tiers based on variable levels of work force growth and work force mobility.

- Tier 1 – Behavioral Change:
  - Improve virtual collaboration
  - Increase remote-working
- Tier 2 – Facility Change:
  - Shift employees from “residential workers” to “mobile workers”
  - Increase seating amount and seating types
  - Increase dual-function work/learn opportunities at existing facilities
- Tier 3 – Facility Acquisition:
  - Add new work/learn location(s) elsewhere in Washington/Baltimore metropolitan region
THE ARRAY OF WORKPLACE OPTIONS

Private Offices – Semi-resident, and enclosed
  - Some existing private offices remain while others are repurposed
  - Residents of remaining offices will need to leave their office ‘useable’ by others when they are off-site, this means leaving a clean desk environment

Workstations – Semi-resident, and open
  - Existing workstations are converted to contemporary systems which feature improved sightlines that are less isolating
  - Organized into “neighborhoods” in order to control acoustics

Workstations – Non-resident, and open
  - Existing workstations are converted to contemporary systems which feature improved sightlines that are less isolating
  - Organized into “neighborhoods” in order to supplement semi-resident workstations, allowing mobile workers to embed into a group’s area and collaborate on in-depth projects

Focus Room Seats – Non-resident, enclosed
  - “heads-down” work booths
    - These are small, acoustically isolated and visually screened spaces intended for solo-work
    - They are significantly smaller than private offices

On Demand Seats – Non-resident, and open
  - Generally provided at 1 seat for every 5 staff
  - However, there should be enough of these seats to allow for “all-hands-on-deck” days

Conference Seats – Non-resident, enclosed and open
  - In this model some existing private offices are repurposed to serve as conference rooms for 4 to 6 people
  - Other areas will need to be repurposed for larger conference rooms of 10-12 people
  - All conference rooms should have extensive multimedia capabilities

SUMMARY

Graphic S.4
The Array of Workplace Options
SUMMARY

THE ARRAY OF WORKPLACE OPTIONS

Conference Seats – Non-resident, enclosed and open
  - In this model some existing private offices are repurposed to serve as conference rooms for 4 to 6 people
  - Other areas will need to be repurposed for larger conference rooms of 10-12 people
  - All conference rooms should have extensive multimedia capabilities

On Demand Seats – Non-resident, and open
  - Generally provided at 1 seat for every 5 staff
  - However, there should be enough of these seats to allow for “all-hands-on-deck” days

Work Café Seats – Non-resident, and open
  - On-site food service areas and lounges should do double duty, providing seating during lunch, but also providing informal conferencing space during non-lunch times
  - Seating should be varied and consist of café-style, booth, banquet, stand-up counter, and provide a comfortable atmosphere for solo “alone-together” as well as small group work
  - Anticipated work café seating capacity is approximately 1/3 of lunch seating capacity
Though three tiers of responses are identified, it is anticipated that Tier 1 (behavioral change) and Tier 2 (facility change) are sufficient. Tier 1 efforts allow the University to effectively address growth for all of the next 10 years, but Tier 1 alone yields sub-optimal results. As 2022 approaches, a combination of Tier 1 and Tier 2 measures will be needed to unleash the potential of UMUC’s work force. Tier 3 measures are not expected to be required, however, a plan is outlined should future circumstances dictate otherwise.

Conclusion

UMUC’s 2012-2022 Facilities Master Plan, although it avoids any new construction, will transform UMUC through a re-envisioned workflow and workplace environment. The implementation of the FMP will take many forms, but the core purpose of the plan is to be a flexible roadmap for making UMUC a more sustainable and compelling place to work.
INTRODUCTION & APPROACH
1 INTRODUCTION & APPROACH

Graphic 1.1
UMUC Banner
FMP INTRODUCTION

The University of Maryland University College [UMUC] is the nation’s largest public university with almost 100,000 students enrolled in the United States and abroad. Its primary method of instruction is virtual, asynchronous course delivery. Online instruction suits the schedule of busy adult professionals seeking post-secondary degrees. This group constitutes the University’s largest student demographic.

Historically, it has been one of the largest providers of higher education to the United States Armed Forces [USAF]. Its nearly 100 fully online bachelor’s and master’s degree programs are offered in the fields of Business & Management, Cyber Security, Education & Training, Healthcare & Science, Information Technology & Computer Science, Liberal Arts & Communications, and Public Safety. UMUC is among 11 member universities of the University System of Maryland [USM].

In the fall of 2012, UMUC engaged Perkins Eastman to conduct a Facilities Master Plan [FMP] for all of its stateside owned and leased facilities. These facilities are largely located within the Washington/Baltimore metropolitan region with its main administrative centers in Adelphi and Largo, Maryland. Recognizing its unique model within higher education, UMUC seeks a master plan that addresses how the University works and learns as much as it addresses where it works and learns. This FMP examines UMUC’s existing space usage, charts the University’s current and future space needs based on projected institutional growth, and suggests strategies to address ongoing changes within the higher education marketplace.

University FMPs typically focus on places for learning, study and student life. However, because UMUC’s course offerings are primarily conducted online, it is the work environment for core faculty and staff that constitutes the majority of UMUC’s physical assets and is therefore the focus of the University’s FMP. It is how UMUC’s employees work and interact that drives the analysis and recommendations of this plan.

This FMP provides an opportunity to investigate how the significant changes in higher education in the United States affect a university’s physical assets. UMUC’s focus on affordable adult education, its accessibility from anywhere in the world, and its size, place it at the center of the challenges and opportunities facing American universities today. As such, its competitors, other USM institutions, and emerging players in the higher education marketplace will closely watch how UMUC proceeds.

The FMP document is a flexible strategic planning tool that will guide UMUC through various strategic planning decisions in what will undoubtedly be a turbulent but exciting time for higher education in the United States.
INTRODUCTION & APPROACH

Graphic 1.2
Stair at the Academic Center at Largo
INTRODUCTION & APPROACH

FMP METHODOLOGY

The objective of the UMUC Facilities Master Plan [FMP] is twofold: first, to fulfill the requirement of University System of Maryland to update its previous 10 year time frame FMP to secure funding for capital projects; and second, to provide a blueprint for UMUC’s future development in accordance with the University’s unique mission and strategic objectives. This document is broken into seven sections, each of which corresponds to specific phases in the overall facilities master plan process, as follows:

1. Introduction & Approach
2. Institutional Profile & Goals
3. Existing Facilities
4. Trends in Higher Education
5. Space Needs
6. Planning Drivers
7. Strategic Responses

The 2012-2022 UMUC FMP builds upon many themes of the previous master plan, conducted in 2003, such as leveraging the potential of distance learning/delivery and improving the alignment of facilities, technology and workflow. However, it also responds to the institutional goals of UMUC’s current leadership and to recent changes within the context of higher education. These new directions are described in Section 6, Planning Drivers.

The following summary outlines the scope of each section, the process used to gather and generate information, and the relevance of each chapter’s findings to the overall Facilities Master Plan.

1. Introduction & Approach

This portion of the document defines the purpose and scope of the Facilities Master Plan and describes the role of a FMP in guiding UMUC’s future strategic planning. To embark upon this process, the University and the FMP planning team reached out to a broad cross section of stakeholders representing academic, administrative, shared governance, and technology constituencies. The FMP process utilized a range of tools, including user group interviews and surveys. In addition, benchmarking tours were conducted to observe recent workplace/workflow trends at the following offices:

- Accenture Consulting’s offices in Arlington, VA
- Canvas Co/Work in Downtown Washington
- Steelcase’s showroom in Downtown Washington
- The Newseum in Downtown Washington
- Marriott’s new Work Café in Bethesda, MD
Throughout the discovery process, UMUC’s stakeholders and contributors expressed a common desire for working environments that are innovative, collaborative, and sustainable.

2. **Institutional Profile & Goals**

The FMP’s initial discovery phases examine the institution’s history, existing enrollment and personnel demographics, as well as institutional goals and objectives, in order to establish a comprehensive institutional profile. This collection of data, and the discussions that result from it, create a portrait of UMUC’s ambitions and identify areas of opportunity.

3. **Existing Facilities**

This part of the FMP’s initial discovery process includes the assessment and cataloging of UMUC’s existing physical inventory. Facilities owned by UMUC were documented electronically with a building information modeling [BIM] database and populated with departmental and functional data. Three days of on-site facilities tours by the FMP planning team verified and qualified the physical space inventory [PSI] room data provided by the University.

4. **Trends in Higher Education**

During the summer of 2012, UMUC’s newly appointed President selected a cabinet-level executive to lead a cross-functional team in the development of new strategic priorities to address emerging higher education trends. A critical outcome of this effort was the acknowledgement that higher education is about to go through a “disruptive change” driven by factors such as tuition costs, technology and demographics. This section defines “disruptive change” and explains why UMUC must remain at the forefront of higher education technologies.

As the majority of UMUC’s building inventory is comprised of office and working environments, this chapter also discusses current trends in work environments. Specific attention is paid to how the proper workplace strategy can increase productivity, improve quality of life, aid in the recruitment and retention of staff, encourage collaboration, and serve more faculty and staff members without necessarily adding more office space.

5. **Space Needs**

One of the FMP’s most important objectives is the determination of UMUC’s future space needs. This critical portion of the FMP process considers UMUC’s existing physical space inventory along with existing and projected enrollment and personnel figures. This data
is combined with the FMP design team’s knowledge of appropriate space standards that best match UMUC’s mission. This analysis provides realistic space targets that correspond to the University’s projected personnel and pedagogy. The space needs assessment only includes UMUC’s stateside facilities. The baseline year for all material is fall 2012.

6. Planning Drivers

Since the beginning of the FMP process, UMUC has clearly stated that it wishes to be a leading sustainable institution with respect to the following areas: energy consumption and efficient facility management; responsible commuting and carbon emissions; and employee satisfaction and well-being. This section defines the overall approach to how UMUC will respond to its facility needs.

7. Strategic Responses

The final portion of the FMP provides a set of clear strategic responses to potential future scenarios over the next 10 years. Building on the findings of the preceding phases, these strategic responses address three different tiers of institutional growth. Each tier is more expansive than the previous one.
INSTITUTIONAL PROFILE & GOALS

Graphic 2.1
UMUC Cyber Padawans
Source: @UMUCCyberTeam
(Twitter)
UMUC HISTORY AND IDENTITY

UMUC was established in 1947, initially under the name of the College of Special and Continuation Studies, and transitioned to UMUC in 1959. In 1970, it became an independent degree-granting institution and a member of the University System of Maryland. Since then, it has become a global institution that primarily addresses the needs of adults with a high school diploma or associate’s degree who are employed full-time or serve in the United States Armed Forces (USAF).

UMUC is distinguished by its relationship with the US military; the University has offered education at military bases in Europe since 1949 and in Asia since 1956. Decades later, the University’s global footprint still remains intricately tied to the activities and geographies of the USAF.

UMUC is also a world leader in online education, with nearly 100 bachelor’s and master’s degrees available fully online. The University is the recipient of numerous awards for its leadership in virtual and distance learning.
ACADEMIC PROGRAMS

Degrees Offered

UMUC offers nearly 100 programs in the fields of Business & Management, Cyber Security, Education & Training, Healthcare & Science, Information Technology & Computer Science, Liberal Arts & Communications, and Public Safety. In 2012, the University awarded well over 9,000 degrees, including:

- 1,185 Associate Degrees
- 4,859 Bachelor’s Degrees
- 3,363 Master’s Degrees
- 47 Doctoral Degrees

UMUC has alliance agreements with all 16 of Maryland’s two-year institutions, making it an obvious choice for many of the state’s community college graduates. In particular, UMUC targets transfer students with approximately 45 college-level credits who seek to complete bachelor’s degrees while working full-time. These students are most likely to succeed in an asynchronous, online learning environment.

Approach to Instruction

UMUC is the largest online public university in the United States, with the vast majority of credit hours delivered virtually through asynchronous instruction. Asynchronous instruction is typically more convenient for working adults as it allows students to work at their own pace and at the time of their choosing. Additionally, UMUC delivers a modest portion of its instruction through hybrid courses that combine in-class experiences with virtual asynchronous instruction. Lesson content and coursework are the same for both delivery methods. UMUC rarely utilizes exclusive face-to-face instruction.
STUDENT PROFILE, ENROLLMENT, AND PROJECTIONS

Although UMUC students are located across the globe, the majority is either enlisted in the USAF or reside in Maryland. Consequently, the demographics of the Washington/Baltimore metropolitan region are a significant factor in predicting enrollment projections. The following section analyzes this regional demographic.

Enrollment Context: Characteristics of Regional College Students

There are 1.2 million college students in the Washington/Baltimore metropolitan region, 73% and 27% of whom are undergraduates and graduate students, respectively. Of the undergraduates, almost 75% attend public universities, whereas just over half (52%) of graduate students attend public universities. Based on the 2011 data, veterans are slightly more likely to attend public universities for both undergraduate (77%) and graduate (56%) studies.

<table>
<thead>
<tr>
<th></th>
<th>Students</th>
<th>% of All Students</th>
<th>Student Veterans</th>
<th>% of Veteran Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total College Students</td>
<td>1,192,525</td>
<td>100%</td>
<td>70,749</td>
<td>100%</td>
</tr>
<tr>
<td>Undergrads</td>
<td>869,030</td>
<td>73%</td>
<td>46,172</td>
<td>65%</td>
</tr>
<tr>
<td>Public School</td>
<td>646,052</td>
<td>74%</td>
<td>35,353</td>
<td>77%</td>
</tr>
<tr>
<td>Private School</td>
<td>212,159</td>
<td>24%</td>
<td>10,819</td>
<td>23%</td>
</tr>
<tr>
<td>Grad Students</td>
<td>323,495</td>
<td>27%</td>
<td>24,577</td>
<td>35%</td>
</tr>
<tr>
<td>Public School</td>
<td>169,104</td>
<td>52%</td>
<td>13,832</td>
<td>56%</td>
</tr>
<tr>
<td>Private School</td>
<td>154,391</td>
<td>48%</td>
<td>10,745</td>
<td>44%</td>
</tr>
</tbody>
</table>

There are more than one million veterans living within 50 miles of Adelphi, as shown in the figure below. Due to the GI Bill, the most recent military veterans are more likely to be attending college. For example, only 7% of all veterans and just 10% of those who served between 1990 and 2001 are in college, while over 30% of veterans who have served since 2001 are attending college.

<table>
<thead>
<tr>
<th></th>
<th>All Veterans(^1)</th>
<th>Years of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,037,004</td>
<td>1990-2001 2001 or Later</td>
</tr>
<tr>
<td>Total</td>
<td>1,037,004</td>
<td>57,240 97,037</td>
</tr>
<tr>
<td>Attending College</td>
<td>70,749</td>
<td>5,804 17,220</td>
</tr>
<tr>
<td>Percent Attending College</td>
<td>7%</td>
<td>10% 18%</td>
</tr>
</tbody>
</table>

\(^1\)Within a 50 mile radius of Adelphi

Source: American Community Survey Public Use Microdata Sample www.ipums.org

*Public and Private School percentages are shares of Undergraduate and Graduate categories.
2 INSTITUTIONAL PROFILE & GOALS

Existing Enrollment

In 2012, UMUC was ranked largest by headcount population among four-year degree public universities in the United States. Within the last 10 years, the number of stateside students attending the University has grown significantly. According to the UMUC’s Office of Institutional Planning, Research and Analysis, the University’s total (stateside) unduplicated headcount for the 2012 fiscal year was 64,127 (“unduplicated headcount” is the count of students enrolled in at least one course for credit with the student not counted twice within the count). This translates into 25,099 full-time equivalent [FTE] students (FTE is derived from the total amount of credit hours delivered by the institution, divided by the expected credit hour load for a full-time student). UMUC’s FTE count consists of approximately 69% undergraduate students and 31% graduate students. Between 2007 and 2012, stateside FTE enrollment has grown significantly, from 17,294 to 25,099.

Student Profiles

UMUC’s primary demographic consists of adult learners who are employed full-time while also pursuing a degree. Almost all of UMUC’s students are enrolled part-time, which is reflected in the relatively low proportion of FTEs-to-headcount.

UMUC also educates a large number of active-duty military personnel and veterans. Significant concentrations of UMUC facilities exist in the Washington/Baltimore metropolitan region. UMUC aims to provide its students with the maximum amount of flexibility, offering a wide variety of online and hybrid course options.

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Graphic 2.4
UMUC Historical and Projected FTE
Online Only
Face-to-Face and Hybrid

FTE

2012 Stateside FTE: 25,099
2017 Stateside FTE: 28,310
2022 Stateside FTE: 32,819

13% Growth from 2012
31% Growth from 2012

Fall 2007
Fall 2008
Fall 2009
Fall 2010
Fall 2011
Fall 2012
Fall 2017
Fall 2022
Enrollment Projections

The UMUC Office of Institutional Planning, Research and Accountability (IPRA) projects a 31% growth from 2012 to 2022. Total full-time equivalent (FTE) enrollment stateside is expected to grow from 25,099 in fall 2012 to 32,819 in fall 2022 (see Graphic 2.4).

WORKFORCE PROFILE AND PROJECTIONS

General UMUC Employment Profile

In the fall of 2012, UMUC had 6,312 employees with home addresses spread across the United States. Nonetheless, the University’s employment base remains distinctly tied to the Washington/Baltimore metropolitan region with 56% of all employees living in Maryland, 11% in Virginia, 3% in the District of Columbia, and the remaining percentage located throughout the rest of the United States. Graphic 2.5 depicts the nationwide distribution of UMUC’s workforce.

UMUC’s population does not uniformly require facility support. For example, although adjunct professors provide the majority of UMUC course instruction, they teach remotely from the location of their choice, do not have assigned office space, and rarely use UMUC space for administrative functions. In order to better determine the population that UMUC’s facilities serve, nation-wide employment data of employees with home addresses outside
of Maryland and adjacent states were collected. Excluding adjunct faculty, there are 1,307 faculty and staff, the majority of whom reside within 50 miles of Adelphi.

This process determined the data-collection area for the regional profile, which was drawn from the 2000 and 2011 US Census Public Use Microdata sample. The distribution of home addresses reveals a strong and expected geographic relationship between UMUC’s facility locations and its employment population, which is primarily in Maryland and within close distance to limited-access highways that feed into the Beltway (I-95/I-495) (see Graphic 2.6).

As a large online university, UMUC recognizes the importance of recruiting and retaining innovative technology workers. The University’s workforce draws from many different professions in various geographic locations. In order to better understand the interplay between some of these subsets, the FMP examines the geographic distribution of technology workers in the Washington/Baltimore metropolitan region and compares this large subset to its general employee population. This analysis determines that the geographic distribution of UMUC’s technology workers in 2012 does not significantly differ from the University’s general employee population. However, the geographic distribution of UMUC’s technology population does significantly differ from its regional cohort. Notably, Northern Virginia is experiencing above average growth rates in numbers of technology workers, with the geographic distribution of the region’s technology workers

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**Graphic 2.6**
Comparative Distribution of Employees Reporting to the Provost (Orange) and the CIO (Green), 2012
skewed accordingly. The detailed analysis can be found in Appendix A. This finding has implications for the recruitment and retention of technology workers who may prefer employment opportunities in closer proximity to their homes. UMUC may need to utilize different workplace strategies to overcome these geographic distances.

Work Force Projections

From 2012 to 2022, the UMUC Office of Human Resources [HR] projects the following growth:

- 21% faculty growth with total full-time equivalent [FTE] faculty expected to grow from 228 in fall 2012 to 276 in fall 2022
- 19% staff growth with total full-time equivalent [FTE] staff expected to grow from 1,079 in fall 2012 to 1,289 in fall 2022

INSTITUTIONAL GOALS

The strategic plan of a university provides a roadmap to future success. Building on its core competencies as a university of choice, UMUC boasts a rich legacy of growth and innovation. It is also a university of the future, priding itself on being a pioneer, innovator and leader in distance learning. Due to its unique position in higher education, many entities seek to define its mission and vision, including the state of Maryland’s legislature, UMUC’s senior leadership, and its President.

The University’s history of accomplishments and vision for the future can be attributed to its mission, which is stated in the Code of Maryland Regulations, (COMAR), Md. EDUCATION Code Ann. §13-101(a):

- Operate as Maryland’s open university serving nontraditional students who reside in Maryland, the United States, and throughout the world
- Provide the citizens of Maryland with affordable, open access to higher education
- Continue as a leader in distributed higher education
UMUC’s 2009-2013 Dynamic and Flexible Strategic Plan

To further strengthen, develop, and reinforce the University’s mission, UMUC’s 2009-2013 strategic plan outlined a set of key dynamic and flexible strategies that served as tactics for achievement:

1. Lead the development and implementation of the next generation of adult higher education
2. Develop a student population of a diversity and size that meets the growth targets and financial goals of UMUC while serving the state of Maryland’s national and international educational interests
3. Strengthen fiscal viability by improving effectiveness and efficiencies
4. Differentiate UMUC’s position in higher education
5. Grow and enhance UMUC’s leadership position in the education of individuals who are serving in or affiliated with the military
6. Develop incremental revenue that will enable a new business model rooted in a more highly diversified revenue portfolio, including a healthy endowment
7. Increase retention and graduation rates while maintaining high academic standards and continuing to address students’ diverse and specific educational needs
8. Ensure that UMUC’s academic programs and services are responsive to a changing workforce and a changing world
9. Using aggressive and comprehensive techniques, build a strong global cadre of faculty who are distinguished by their professional experience, academic achievement, and ability to foster student learning
10. Create a work environment incorporating our core values where employees are empowered, supported, and provided with professional career development to enable UMUC to recruit and retain high-quality, student-focused faculty and staff

UMUC’s President’s Cross-Functional Strategic Priorities

During the summer of 2012, UMUC’s newly appointed President selected a cabinet-level executive to lead a cross-functional team to create new strategic priorities and address emerging higher education trends. This diverse team was comprised of knowledge content professionals from Academia, Administration, Student Services and Enrollment, while utilizing shared governance to solicit input from University stakeholders on institutional decisions.

As a result of this process, the committee developed the following strategic priorities:

- Research, develop, and implement transformative, next-generation learning
- Build processes to develop and support market-based signature academic programs
- Provide career development support to students throughout their life-cycle
- Become an employer of choice
- Identify and develop new sources of revenue and enrollment streams
These strategic priorities strengthen UMUC’s capability of attaining its vision.

At a Town Hall meeting in early 2013, the University’s President took note of the “disruptive change” which will revolutionize higher education. In the President’s view, as the impact of technology on higher education continues to evolve, UMUC will be positioned at the forefront of this disruptive change through its calculated alignment of strategic priorities with core values and resource allocation. With the newly established Center for Innovation in Learning, educational disruption will lead to positive change for both students and the institution. The President is confident that embracing such disruptive change, with integrated strategic priorities and the University’s fundamental core values, is key to maintaining UMUC’s forward momentum.

More recently, in a broadcast message, the President shared that his two highest priorities for the University are student retention/success and lead management (the process of converting prospective students into enrolled student). The University has recently formed two executive-led committees to drive each of these priorities, which will allow UMUC to better assess the following factors:

- Development guidelines for global implementation
- Definition of the measures of success
- Establishment of benchmarks
- Operationalization of projects
- Monitoring of results

**UMUC’s Growth Targets**

Driven by the University’s existing baseline and newly emerged strategic priorities, UMUC is poised to achieve progressive growth across student, faculty, and staff populations. Despite environmental factors affecting current and potential students at UMUC and across higher education, the Facilities Master Plan will serve as a dynamic, flexible and responsive guide to minimize systematic risk by offering innovative strategies to minimal, medium and high levels of growth.

UMUC’s past, present and future success stems from its mission, strategies and commitment to quality. Spearheaded by this Facilities Master Plan, as online education continues to advance, the emphasis on innovation will place UMUC as a leader and catalyst within online education as it continues to provide accessible, affordable and quality education to non-traditional students.
Graphic 3.1
The Library at the UMUC Inn & Conference Center
CAMPUS DEVELOPMENT

Geographic Footprint

UMUC’s facilities consist of both “core facilities” and “satellite facilities” located primarily in Maryland and adjacent states. The University owns its core facilities, which are distributed between two campuses: the original campus at Adelphi (adjacent to the University of Maryland College Park [UMCP] campus) and Largo (located approximately 20 minutes south on the Beltway). The satellite facilities are generally located within a 50 mile radius of Adelphi and are either leased or have a special arrangement with the University.

Graphic 3.2
Driving Routes Between UMUC Locations
3 EXISTING FACILITIES

Graphic 3.3
UMUC Adelphi Campus

Graphic 3.4
UMUC Adelphi Campus from NE (courtesy of Pictometry)
The Adelphi campus has grown from the Inn & Conference Center [ICC] as an outpost of the University of Maryland College Park campus, to a vibrant complex that now serves a diverse population of UMUC administrators and technologists, hotel guests, and numerous conference and event attendees. The 2003 Facilities Master Plan recommended a number of programmatic changes to these facilities. At the time, the building known today as the Administration Building was referred to as the “Student & Faculty Services Center” and contained student services and administrative functions. The 2003 FMP recommended a re-envisioning of this building as a core instructional facility for UMUC, with classrooms, lecture halls, labs, student lounges, and faculty offices. However, this initiative was not implemented. Instead, the Student & Faculty Services Center became UMUC’s Administration Building, and new instructional spaces and student resources were relocated to the facilities at Largo. Today, Adelphi is devoted primarily to administrative, hotel, and conferencing functions. While the Adelphi campus is not home to any instructional spaces, the majority of UMUC’s hybrid instruction is conducted in the evenings in leased classrooms on the adjacent UMCP campus.

UMUC has made significant investments in the Adelphi facilities in recent years. These renovations, which have kept the buildings aesthetically current and programmatically relevant, include the hotel and conference center, which recently received a full renovation and remains the primary conferencing location for both UMUC and UMCP.

The buildings at Adelphi form a single complex centered on two primary open spaces. The larger of these two spaces, Drazek Circle, is a triangular lawn and entry drive framed by the Administration Building, the parking garage, and the ICC. Drazek Circle was redesigned...
and improved with the renovation of the Administration Building, and is occasionally used for outdoor activities and events. This space previously included a bridge to the parking garage, which has been removed.

The second open space is a hardscape entry plaza between the Hotel Building and the ICC. The recent renovation of the ICC added a covered walkway between the ICC and the Hotel Building. The remaining campus landscape, including flower gardens next to the Administration Building, is generally ornamental rather than functional. The buildings and grounds at Adelphi are well maintained, and create a campus that is an asset to conference attendees and UMUC staff.

Growth Beyond Adelphi – University Center

UMUC’s student enrollment has increased dramatically over the last decade, and the University’s staff and Collegiate faculty numbers have significantly expanded to accommodate this growth. This expansion has tested the capacity of the Adelphi campus, and adjacent real estate opportunities are scarce. UMUC’s Adelphi campus is, in many ways, landlocked, with two major arterial roadways binding the campus on the west and south sides. Additionally, UMCP parking fields are located to the east of the campus, and UMCP’s President’s mansion is located to the north. Due to UMCP’s continued growth, neighboring properties are in high demand, expensive, and rarely available.

In response to the pressure caused by UMUC’s growth, a nearby office building on Route 1 (north of the UMCP campus) was purchased in 2000. This facility is known as University Center. This facility does not have any attendant open space and fronts Route 1 with a surface parking lot.

The spaces at University Center, however, were not sufficient to meet UMUC’s needs at the time. In the mid-2000s, Raytheon’s former headquarter facilities in Largo became available, presenting UMUC with the opportunity to purchase Class A office space on the Beltway. This location was convenient and desirable for UMUC’s employee population; the University seized the opportunity and purchased the property.

Core Facilities – Largo Campus

The 2003 Facilities Master Plan produced a set of recommendations for the future of UMUC’s facilities based on enrollment projections, market analysis, and potential growth opportunities. Following a study of four conceptual alternatives, the 2003 FMP recommended taking a “distributed” approach to development. With this strategy, multiple physical sites are maintained and developed in and around the Adelphi and Metro Center
EXISTING FACILITIES

Graphic 3.6
UMUC Largo Campus

Graphic 3.7
UMUC Largo Campus from NW (courtesy of Pictometry)
areas. In addition to the redevelopment and consolidation of program functions within the Adelphi and College Park area, the plan recommended the development of a new campus containing operational and support functions. This expansion eventually manifested itself in UMUC’s second campus at Largo. Shortly after the opening of the Academic Center at Largo (also known as Largo 1), a second facility across the street was purchased to provide additional space for student support services. This building is known as Largo 2.

UMUC provides the vast majority of its student services virtually through its extensive online support system. Online support, however, requires physical facilities for call service centers and the administration and development of online programs. In 2009-2010 the University relocated several departments, most notably the Undergraduate and Graduate schools, as well as Student Services, into a newly renovated Academic Center in Largo.

Though not technically a campus, Largo is comprised of two buildings: the Academic Center at Largo and Largo 2. These buildings are separated by McCormick Drive, and there is little pedestrian circulation between the two buildings, except during lunchtime. The most notable open space at UMUC’s Largo complex is the area directly south of the Academic Center, which has been left as a natural landscape and includes an exercise loop. Although it is adjacent to the Beltway, the facility is obscured by existing trees and changes in terrain, and is only announced with a sign mounted on a high pole.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Primary Functions</th>
<th>Owned/Leased</th>
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<tbody>
<tr>
<td>Dorsey Station</td>
<td>- Classrooms</td>
<td>Leased</td>
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<td></td>
<td>- Offices</td>
<td></td>
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<td></td>
<td>- Student Support</td>
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<td>The Universities at Shady Grove</td>
<td>- Classrooms</td>
<td>Special Arrangement</td>
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<td>- Offices</td>
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<td>Waldorf Center</td>
<td>- Classrooms</td>
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<td>Quantico</td>
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<td>- Offices</td>
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**Satellite Facilities**

UMUC has multiple satellite locations stateside. The primary stateside facilities are clustered in and around the Washington/Baltimore metropolitan region, and include:

- Dorsey Station (lease start in 2006; lease end in 2016)
  - This facility is located south of Baltimore, immediately adjacent to a regional commuter rail train station, just off of I-95, and near the Baltimore-Washington International Airport [BWI]. It is a single leased floor of a speculative office building in a suburban office campus. It includes a mixture of classrooms, some student support, and offices for Dorsey staff.
The Universities at Shady Grove (no formal lease structure)
- This campus is located northwest of Washington in a complex where many of the University System of Maryland institutions share space. UMUC does not own or lease space, but has an agreement that defines the amount of office and classroom space it can use. There is currently no support space allocated for employees visiting from other UMUC locations.

Waldorf Center (lease start in 1997; lease end in 2017)
- This facility is located in leased space in Maryland, south of Washington. It includes modest classroom facilities. Currently, there is minimal support space for employees visiting from other UMUC locations.

Quantico (lease start in 2012; lease end in 2017)
- Located in Virginia, south of Washington and near a major military installation, this leased facility is in newly constructed space and includes modest classroom facilities. Unlike UMUC’s other satellite facilities, it is more generous in its space allocation for visiting UMUC staff.

**BUILDINGS**

*Administration Building (Adelphi)*

The Administration Building houses the majority of UMUC’s Analytics, Planning & Technology (APT) functions, as well as its marketing activities. It also contains offices for Institutional Advancement and Human Resources. The building’s floor plan is clearly organized with a central stair and/or open space on each floor (extending vertically from the entry lobby), and secondary “service hubs” in the center of each wing. These service hubs include pantries, toilets, secondary elevators, and formal and informal conference space. In some instances, floor access is controlled by proximity card readers. The Administration Building’s most recent renovation created a more open environment with a balance of mixed “neighborhoods” of reconfigurable office cubical systems and private offices.

The Administration Building features several large, multi-story windows with arched lintels that attempt to capture the Collegiate-Georgian style of the adjacent University of Maryland campus. The four-story building’s renovated interior is in excellent condition. The building also benefits from numerous informal gathering areas and an open stair that connects the floors to one another.
3 EXISTING FACILITIES

Graphic 3.9
Inn & Conference Center Entrance
Prior to 2013 Renovation
Inn & Conference Center [ICC] (Adelphi)

The ICC is a complex of connected buildings that range in height from one to five stories. It also has a large basement that is occupied by several departments. Programmatically, the ICC serves a range of needs for UMUC, including administrative office space, conference rooms, hotel rooms, and spaces for special events. The hotel, event/conference, and food service component of the ICC is managed via a vendor service contract by the Marriott Hotel Corporation.

During the course of the FMP process, the ICC’s interiors have been fully renovated to the most current design standards for a Marriott Hotel, with a clean and muted color palette. The first floor of the ICC is primarily dedicated to the conferencing functions of the hotel, including two large ballrooms. One ballroom has been recently created from a tiered auditorium, a banquet room and several conference room/pre-function spaces. There is also a large food service and informal meeting/lounge component to support the event spaces. This includes a large commercial kitchen, food service offices, and a restaurant designed in a contemporary and informal “gastro-pub” style with communal tables. The restaurant serves both the hotel’s food service needs and some of UMUC’s informal meeting needs. UMUC’s permanent art collection is also exhibited on the first floor of the ICC in a specially-built addition.

The exterior design of the ICC is in the same Collegiate-Georgian style as the College Park campus and features several columnated and brick-arched arcades, as well as a cupola typical of the style. Though a large building, its mass is broken down into three major volumes that provide a pleasing scale typical of collegiate campus architecture.

Hotel Building (Adelphi)

The hotel building and almost all space within it is managed in concert with the ICC via a vendor service contract by the Marriott Hotel Corporation. This building is not a significant focus of the FMP study, but it does have a modest complement of conference rooms and event space on its ground floor. It is an environmentally sustainable building, with the distinction of being the first LEED-certified [Leadership in Energy & Environmental Design] hotel and conference center in the United States.

The hotel building, while echoing some of the Collegiate-Georgian themes of its neighbors, is designed in a contemporary style with simple massing and little ornamentation. The building’s massing also helps to frame the entry court to the ICC. It has been recently linked to the ICC building with a covered, open-air walkway.
Garage (Adelphi)

The five-level garage provides parking for visitors on the ground level and employees, and overflow visitor parking on the upper levels. Until recently, UMUC charged for parking, but determined that it cost more to maintain the vendor contract to collect such fees than the revenue produced.

University Center (Adelphi Adjacent)

University Center has three levels and serves as a flexible work and surge space environment. It is designed in a clean and simple contemporary style with continuous ribbon windows and brick cladding. Its interior is not noteworthy.

Academic Center at Largo (Largo)

The Academic Center at Largo (also known as Largo 1) is a full-service facility and contains administrative offices, student services, and amenities such as classrooms, offices for student advising/counseling, and a cafeteria for students, staff, and visitors. Recent investment in the LEED Gold building totaled almost $60 million and provided UMUC the ability to house Collegiate faculty in one building. The facility also offers on-site face-to-face and virtual student services, classrooms, library and cafeteria.

The first floor of the building contains the largest amount of public space, including a full cafeteria and supporting kitchen. Directly off the main entrance is a suite of small offices that are used for student advising and counseling by either appointment or walk-in. Other amenities on this floor include classrooms, computer labs, a student lounge, an auditorium (a flat-floor multipurpose room), and a fitness center. UMUC’s Information & Library Services offices also are located on this floor, where students have the option of talking in-person with a Library staff member, or using computers at study carrels to access UMUC’s online library database.

The second floor of the Academic Center at Largo is comprised overwhelmingly of offices and cubicles for Collegiate faculty and staff. The floor is primarily split between office space for the School of Undergraduate Studies and Student Affairs. The third largest space allocation on the second floor is for Military Operations offices. In addition, a small percentage of the second floor is dedicated to Exams and Testing, Textbook Operations, OISS Administration, the Center for Teaching & Learning, Human Resources, and shared conference rooms. A small number of rooms on this floor are currently vacant.
Like the second floor, the third floor of the Academic Center at Largo primarily contains offices and cubicles for Collegiate faculty and staff. Most of the floor is divided between the Graduate School, Enrollment Management, and OISS Administration. This floor also contains Partnerships, Marketing & Enrollment (PME) Management, offices for the Center for Support & Instruction and the Center for Teaching & Learning, and shared conference rooms.

Architecturally, the Academic Center at Largo is a massive three-story building with simple massing and a clean, contemporary exterior. It features continuous ribbon windows and a metal panel exterior cladding system. The facility has several noteworthy design features, including:

- A clearly defined circulation spine along all three levels with generous amounts of natural light
- Open circulation stairs that link the facility’s three levels
- Flexible floorplate configurations, making the facility exceptionally adaptable
- LEED Gold

Largo 2

Largo 2 is a student services facility that houses Student Accounts, Financial Aid, and Call Center Operations, providing telephone support to UMUC students.

This building is a one-story open frame structure with a simple modern exterior and minimal interior partitions. Its interior features large open-plan work environments and a small number of enclosed/private offices and shared spaces, such as pantries and conference rooms. The interior has several thoughtful design elements, including textured walls and a water feature in the lobby.
4 TRENDS IN HIGHER EDUCATION

Graphic 4.1
The Changing Workplace: Treadmill Workstation at Accenture’s Houston Office
As highlighted by UMUC’s senior leadership, higher education in the United States and globally is experiencing a period of disruptive change that offers significant opportunities for UMUC. This section identifies the drivers of “disruptive change,” including new technologies, economics, evolving student demographics, and new instructional delivery methods.

**DISRUPTIVE CHANGE**

The impact of technology on many industries is well documented, but higher education has yet to undergo the changes seen in industries such as music, journalism, telecommunications, travel, and publishing. In each of these industries, technology (particularly when combined with mobility) has dramatically altered consumer patterns and their relationships with service and content providers. In some markets, for-profit online institutions have displaced their not-for-profit brick and mortar counterparts (in the same way Amazon.com and iTunes have displaced book and music stores respectively). In the last few years, the quality of their higher education counterparts have come under increased scrutiny and enrollment has suffered. However, this is likely a temporary situation that will resolve itself as these institutions retool and consolidate gains. Higher education has thus far avoided such cataclysmic shifts, but that is unlikely to continue.

*New Forms of Digital Delivery*

Yet another front of competition comes from educational publishing companies, such as Pearson, as they become more digital and replace lost textbook income with consulting and digital application services (apps). Increasingly, such apps will serve as surrogate instructors, and firms like Pearson will receive volumes of performance data from the apps. These firms also have a long tradition of (or are acquiring) exciting and effective graphic interface capabilities. These firms are also quickly able to apply (video) gaming approaches in the design of their interfaces. Once these firms and their programs become successfully credentialed (some already are licensed), they will become formidable partners/challengers to traditional institutions of higher education and UMUC in particular. In 2012 alone, over $1.1 billion was invested by venture capitalists into educational technologies, a figure that was almost as high in nominal terms as the dot-com peak.

At the same time, the quality of exclusively online course offerings (synchronous and asynchronous) has vastly improved over the past few years. This is partially driven by the marketplace, but it is also a result of new technologies being continuously developed by a greater variety of firms, such as Amplify, to assist universities in developing and running online programs. The public’s wariness of online education is gradually being overturned as this method of course delivery becomes more commonplace and less stigmatized.
According to the US News & World Report, the number of colleges offering degree programs that are administered solely online has almost doubled in the past decade. As of 2012, approximately 62% of postsecondary education institutions offered fully online programs. It is likely that institutions leading this sector will increasingly resemble technology companies in terms of their business model, branding and digital sophistication.

**Increased Cost Sensitivity**

From the consumer’s side, the recent recession has left many students and their families less able and less willing to pay for college. Many families no longer view a university education as a rite of passage into adulthood, but rather as a strategic investment that must be approached with prudence. Like much of American consumer spending over the past two decades, higher education has been increasingly financed by debt. This is exacerbated by cost growth rates that exceed inflation. With national student debt now exceeding national credit card debt, the financial relationship between universities and students must change. The return-on-investment of a college degree is now one of the top considerations for many students, and it is of vital importance that the experience translates into a well-paying job in a desired field of work. With the consumer market moving in a downward pricing direction, institutions that fail to respond may risk their continued viability.

**Demographic Change**

Another transformation in the landscape of higher education is evident in the demographics of today’s student population, which is not only more diverse ethnically and economically, but also in terms of life experience and age. The international student population in the US continues to rise, as does the percentage of non-white students enrolled in post-secondary degree-granting institutions. But perhaps the most notable shift in the demographics of higher education is in the average age of students pursuing post-secondary studies. A large part of the increase in adult learners can be attributed to the economic recession, which spurred many people to seek new skills or pursue a higher degree. According to the National Center for Education Statistics, approximately 23% of college students in the US were between the ages of 25 and 34 and nearly 18% were 35+ years of age as of 2010. The enrollment of students 35+ years of age increased 32% between 1996 and 2010 and is projected to increase 25% between 2010 and 2021.

In order to remain competitive in today’s market, institutions of higher education must adjust to meet the needs of this more mature student demographic. These non-traditional students often work full- or part-time and may have family or other obligations to attend to in addition to their coursework. Unlike traditional students who are younger and attend
TRENDS IN HIGHER EDUCATION

Graphic 4.2
Yesterday’s Traditional Classroom

Graphic 4.3
Today’s Active Learning Environment
school full-time, adult students may require more flexibility in class location (such as online learning options) and schedule (evening and weekend courses).

**Asynchronous Learning**

Asynchronous learning has helped meet this growing demand for instructional flexibility. Asynchronous learning allows students to work at their own speed, skipping or moving quickly through content that they have already mastered. This type of learning may be especially appealing to non-traditional students who have the advantage of practical, real-world experience and the maturity to self-manage. As opposed to a traditional lecture environment in which the instructor delivers information at a set pace, online instruction is well-suited to support self-paced learning. With course materials available at any time online, students may select particular areas on which to focus their energies.

One asynchronous method that has received a great deal of attention in the past several years is the massive online open course [MOOC]. Since 2008, MOOCs have exploded in popularity, gaining traction and legitimacy from a number of top-ranking universities. In the United States, esteemed institutions such as Harvard, Stanford, MIT, Yale, UC Berkeley, and UCLA have launched a variety of free online course offerings available to students around the globe. While the benefit of MOOCs and their low completion rates are debatable, it is undeniable that they have and will continue to change the way that higher education is delivered and consumed. Just as importantly, MOOCs have also become powerful marketing tools, helping to publicize super-star faculty and promote an institution as a center of excellence for a specific field of study.

**Synchronous Learning**

The approach to synchronous teaching and learning (face-to-face and online) has also undergone a paradigm shift, moving away from traditional methods of “passive” instruction to more effective and student-focused “active learning” tactics. Following this trend, student expectations for their higher education experience are changing. Students expect a more personalized face-to-face [F2F] educational experience, including frequent interaction with their instructors, a high level of engagement, and a collaborative environment. This is generally met through the concept of student-centered “active learning” which emphasizes the active participation of the student as a key component of effectively learning and processing course material. Active learning methods can be applied to online or distance-learning classes as well as in-person instructional settings. A wide variety of virtual tools exist to support long-distance collaboration, allowing students in multiple locations to interact with each other and the instructor through videoconferencing, document sharing, instant messaging and more.
While active learning relies heavily on the instructional delivery method, the physical space of the “classroom” may also be adapted to support this type of learning. For example, flexible seating (movable tables and chairs) allows students to work individually or in groups of various sizes; in a tiered lecture hall, the depth of the tiers may be extended to accommodate two desks per tier, allowing students to turn their seats and work in pairs.

**THE CHANGING WORKPLACE**

In addition to changes in higher education’s academic spaces, the workplace is undergoing a change of its own. Over the past few decades, learning has become increasingly collaborative, with less time spent on “heads-down,” solitary work. In situations where team members are located in different geographic locations, and even different time zones, workplace interaction may occur in person, via conference calls, through e-mail, instant messaging, or through voicemail and text.

**The Purpose of Physical Office Space**

Technology has given workers the ability to connect anywhere, anytime using smaller and more portable devices. Often, employees could perform the majority of their work outside of a formal office setting, but they continue to commute to a physical office in order to interact with their colleagues. They want to remain “in the loop” and to be part of an environment where there is a “buzz.” Of course, much work requires solitary focus, but workers typically do not want to be too isolated from their colleagues. Many workplace designers and managers have realized that the physical office setting must now function as a magnet, attracting and holding the attention of employees.

This shift has impacted workstation and office sizes. Over the past few decades, there has been a gradual shift away from the “space by rank” method of assignment (where the size of the individual workspace is related to the organizational hierarchy) toward a new set of workplace standards, where there is one size office and one size workstation, or even one size workstation with no enclosed offices. Because the technology has gotten smaller (or has become obsolete, such as personal printers), the standard size of workstations has also decreased.

When workers have the freedom to choose where, when, and how they perform their work, the work that is performed within an office setting is usually more collaborative. Since they spend more time on-site in meetings (formal or impromptu), assigned workstations are typically underutilized and the demand for variously sized meeting spaces is unmet. Some organizations have addressed this mismatch by asking employees to use space on an as-needed basis, as opposed to “owning” a dedicated workspace (workers with
dedicated workspaces are called “resident workers”). Often these arrangements involve the assignment of employees to an office “neighborhood,” where a team owns a set of workspaces (fully enclosed and more open) that accommodate different types of work. The underlying principle is that most workers, not only those who would traditionally be assigned to a private office, perform some tasks that require an enclosed room, and most would also benefit from the knowledge sharing that occurs in a more open setting.

The Role of Greater Mobility

One change that affects most workers is the increasing prevalence of distance collaboration. It has become commonplace for managers to oversee teams that are geographically dispersed; workplaces can support such distance collaboration through better (and more widely distributed) video and audio conferencing technology.

The transition to greater workplace mobility has not only been motivated by improved technologies but by an improved understanding in employee health and performance. There is growing focus on wellness and sustainability in the workplace, and an increasing recognition that long commutes are not the healthy choice for either for people or for the planet. Offering employees the option of working from home, or closer to home, rather than commuting to the office every day of the week, is becoming the norm. Likewise, the realization that sitting at a desk or in conference rooms all day long is not a healthy choice has led more organizations to provide opportunities for standing during meetings or while working on a computer (see Graphic 4.1). It has also become popular to incorporate opportunities for short walks during the workday, usually between different workplace settings and on-site amenities. In general, there is more internal mobility (on-site) and external mobility (off-site).

Variations in Workstyle Result in Variations in Workplace Options

It has become clear over the last decade that variations in workstyle are not simply the result of job function. A person’s workstyle is largely affected by individual temperament. Many employees develop their optimal working habits while in college, when they have the freedom to study at the time and location of their choosing. However, when students enter the workforce, they often conform to a routine that does not necessarily align with their optimal workstyle.

Some people perform their best solo work when personal activities and work activities take place in distinctly different places (an example of this is the students who go to the library, a coffee shop, or other shared places to study). Others perform best when personal and work activities occur in the same location (students who use their dorm room or apartment
are an example of this type). Those who prefer to blur the lines between work and life are sometimes most productive when working from home, where they are able to work at odd hours and incorporate breaks into their schedule. For people who prefer a separation between work and life activities, working from home for long stretches of time may be problematic; with a lack of boundaries and social interaction, these workers may tend to overwork and feel isolated.

Workers who thrive outside of an office setting are served well by a new type of office environment that has recently appeared: co-working spaces. These types of shared spaces originally served freelancers and start-ups, but are becoming more popular in corporate settings. Co-working environments provide a comfortable space for individual work as an alternative to working from home (and are often closer to home than more conventional offices). An advantage of these environments over working from home is that they also support informal collaboration among a diverse mix of people.

The trends discussed in this section offer UMUC the opportunity to significantly rethink its workflow and workplace design. In many instances, responding to these trends requires little to no facilities change; in others, the need can be met with simple furniture solutions. Notably, UMUC has already responded to many of these trends. The FMP provides the University with an opportunity to closely coordinate future facilities investments with exciting work already underway.
5 SPACE NEEDS

Graphic 5.1
Exterior of the Academic Center at Largo
OVERVIEW OF SPACE NEEDS

As a largely virtual university, UMUC has a fraction of the space needs that an institution of comparable enrollment would have. Because most instruction occurs asynchronously online and requires little to no classroom space, UMUC’s physical space is weighted toward workplace environments. In early 2012, UMUC owned 494,565 NASF of space (excluding hotel buildings) at its main facilities in Adelphi, University Center and Largo.

UMUC leases an additional 40,915 GSF at four satellite facilities including Dorsey Station (a classroom/office facility located south of Baltimore near Baltimore/Washington International [BWI] Airport), Waldorf Center in southern Maryland, the Universities at Shady Grove, and Quantico in Virginia. For the purposes of the FMP, Dorsey Station was deemed most representative of UMUC’s goals for satellite facilities and was included in the FMP’s scope. All other stateside leased space, including that at military installations, was excluded.

In addition to these satellite facilities, UMUC utilizes a significant number of classrooms in the evening at the University of Maryland College Park [UMCP]. UMUC has a memorandum of understanding with UMCP that provides classrooms on a credit hour basis.

The FMP determined that UMUC currently has sufficient space to meet the needs of its programs and services; the main concern relates to the need for future workspace for UMUC’s growing number of faculty and staff. Rather than propose a physical solution, such as new construction, acquiring a building or leasing space, the FMP recommends behavior-based change strategies related to scheduling and the flexible use of space as the best way to manage growth. This is to be accompanied by a shift in workplace design that provides a variety of “on-demand” work environments, from private, individual work areas to collaborative teamwork areas (see Section 7 for example spaces). The details of this strategy are described in Section 7, Strategic Responses.
### 5 SPACE NEEDS

#### Graphic 5.2
Net Assignable Space Needs by Function Type

<table>
<thead>
<tr>
<th>Space Type</th>
<th>Code #</th>
<th>UMUC Owned Space</th>
<th>Leased</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>TOTAL OWNED</strong></td>
<td>Adelphi*</td>
</tr>
<tr>
<td>Classroom</td>
<td>110</td>
<td>2,103</td>
<td>0</td>
</tr>
<tr>
<td>Class Lab</td>
<td>210</td>
<td>4,326</td>
<td>0</td>
</tr>
<tr>
<td>Open Lab</td>
<td>220</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Res Lab</td>
<td>250</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Office</td>
<td>300</td>
<td>311,463</td>
<td>136,620</td>
</tr>
<tr>
<td>Study</td>
<td>410</td>
<td>909</td>
<td>0</td>
</tr>
<tr>
<td>Stack</td>
<td>420</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Process/Serv</td>
<td>440/455</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Media Produc</td>
<td>530</td>
<td>2,359</td>
<td>2,359</td>
</tr>
<tr>
<td>Assembly</td>
<td>610</td>
<td>3,356</td>
<td>0</td>
</tr>
<tr>
<td>Exhibit</td>
<td>620</td>
<td>3,468</td>
<td>0</td>
</tr>
<tr>
<td>Food</td>
<td>630</td>
<td>8,790</td>
<td>0</td>
</tr>
<tr>
<td>Lounge</td>
<td>650</td>
<td>3,933</td>
<td>0</td>
</tr>
<tr>
<td>Merchandising</td>
<td>660</td>
<td>117</td>
<td>117</td>
</tr>
<tr>
<td>Recreation</td>
<td>670</td>
<td>1,538</td>
<td>0</td>
</tr>
<tr>
<td>Meeting/Conf</td>
<td>680</td>
<td>429</td>
<td>248</td>
</tr>
<tr>
<td>Data Produc</td>
<td>710</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Storage</td>
<td>720/740</td>
<td>9,756</td>
<td>5,164</td>
</tr>
<tr>
<td>Central Service</td>
<td>750</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Residence</td>
<td>900</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unclassified</td>
<td>050</td>
<td>35,089</td>
<td>0</td>
</tr>
<tr>
<td>Other Org</td>
<td>090</td>
<td>106,929</td>
<td>106,304</td>
</tr>
<tr>
<td><strong>TOTAL NASF</strong></td>
<td></td>
<td><strong>494,565</strong></td>
<td>256,280</td>
</tr>
</tbody>
</table>

*Note: Excludes Hotel Building GSF and NASF as it is wholly managed by Marriott.*
SPACE NEEDS PLANNING GUIDELINES

An analysis of current and projected space deficiencies has been developed from the University System of Maryland’s [USM] space planning guidelines for higher education. Because of UMUC’s unique approach to instructional delivery, the Facilities Master Plan has analyzed USM’s guidelines and adapted them to UMUC’s programs and services in order to provide appropriate guidance to UMUC, USM and state government decision-making. Commentary on how USM’s guidelines were adapted to UMUC can be found in Appendix C.

The adapted guidelines within the FMP are determined by inputting UMUC’s actual and projected planning data to yield UMUC’s overall existing space needs in 2012 and projected space needs in 2022. These needs are compared against UMUC’s existing inventory and the modified USM allowances for each type of space (as modified by the FMP planning team). Because the University’s physical inventory is not expected to change over the course of the planning period, UMUC’s projected space inventory is the same as its existing space inventory.

The following chart details UMUC’s current and projected space excesses/deficiencies by space function category as defined by the Facilities Inventory and Classification Manual [FICM].

<table>
<thead>
<tr>
<th>Year</th>
<th>Space Inventory Total</th>
<th>Inventory Allowance (per modified guidelines)</th>
<th>Excess/Deficiency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Current</td>
<td>494,565 NASF</td>
<td>487,034 NASF</td>
<td>7,531 NASF</td>
<td>2%</td>
</tr>
<tr>
<td>2022 Projected</td>
<td>494,565 NASF</td>
<td>548,835 NASF</td>
<td>-54,270 NASF</td>
<td>-10%</td>
</tr>
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</table>

[Graphic 5.3 Summary of 2012 Current v Guideline Allowance]
[Graphic 5.4 Summary of 2022 Projected v Guideline Allowance]
### Existing and Projected Space Needs by Function Type

#### 2012

<table>
<thead>
<tr>
<th>Space Type</th>
<th>FICM #</th>
<th>2012 Current Total</th>
<th>Allowance</th>
<th>Excess/Deficiency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>110</td>
<td>2,103</td>
<td>2,103</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Class Lab</td>
<td>210</td>
<td>4,326</td>
<td>4,326</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Open Lab</td>
<td>220</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Res Lab</td>
<td>250</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Office</td>
<td>300</td>
<td>311,463</td>
<td>303,727</td>
<td>7,736</td>
<td>3%</td>
</tr>
<tr>
<td>Study</td>
<td>410</td>
<td>909</td>
<td>909</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Stack</td>
<td>420/430</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Process/Serv</td>
<td>440/455</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Armory</td>
<td>510/515</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ath/PE</td>
<td>520/525</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>SATSC Seat</td>
<td>523</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Media Produc</td>
<td>530</td>
<td>2,359</td>
<td>2,359</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Clinic</td>
<td>540/545</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Demo Fac</td>
<td>550/555</td>
<td>0 ad hoc</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Animal Fac</td>
<td>560/570</td>
<td>0 ad hoc</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Greenhouse</td>
<td>580/585</td>
<td>0 ad hoc</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Assembly</td>
<td>610/615</td>
<td>3,356</td>
<td>3,464</td>
<td>(108)</td>
<td>-3%</td>
</tr>
<tr>
<td>Exhibit</td>
<td>620/625</td>
<td>3,468</td>
<td>3,837</td>
<td>(369)</td>
<td>-10%</td>
</tr>
<tr>
<td>Food</td>
<td>630</td>
<td>8,790</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Child Care</td>
<td>640</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lounge</td>
<td>650</td>
<td>3,933</td>
<td>3,525</td>
<td>408</td>
<td>12%</td>
</tr>
<tr>
<td>Merchandising</td>
<td>660</td>
<td>117</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Recreation</td>
<td>670</td>
<td>1,538</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Meeting/Conf</td>
<td>680</td>
<td>429</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Data Produc</td>
<td>710/715</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Storage</td>
<td>720/745</td>
<td>9,756</td>
<td>9,696</td>
<td>60</td>
<td>1%</td>
</tr>
<tr>
<td>Central Service</td>
<td>750</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Haz Mat</td>
<td>760</td>
<td>0</td>
<td>195</td>
<td>(195)</td>
<td>-100%</td>
</tr>
<tr>
<td>Health</td>
<td>800</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Residence</td>
<td>900</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unclassified</td>
<td>050</td>
<td>35,089</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Org</td>
<td>090</td>
<td>106,929</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL NASF</strong></td>
<td></td>
<td><strong>494,565</strong></td>
<td><strong>487,034</strong></td>
<td><strong>7,531</strong></td>
<td><strong>2%</strong></td>
</tr>
</tbody>
</table>

#### 2022

<table>
<thead>
<tr>
<th>Space Type</th>
<th>FICM #</th>
<th>2022 Projected Total</th>
<th>Allowance</th>
<th>Excess/Deficiency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>110</td>
<td>2,103</td>
<td>2,103</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Class Lab</td>
<td>210</td>
<td>4,326</td>
<td>4,326</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Open Lab</td>
<td>220</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Res Lab</td>
<td>250</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Office</td>
<td>300</td>
<td>311,463</td>
<td>303,727</td>
<td>7,736</td>
<td>3%</td>
</tr>
<tr>
<td>Study</td>
<td>410</td>
<td>909</td>
<td>909</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Stack</td>
<td>420/430</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Process/Serv</td>
<td>440/455</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Armory</td>
<td>510/515</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ath/PE</td>
<td>520/525</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>SATSC Seat</td>
<td>523</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Media Produc</td>
<td>530</td>
<td>2,359</td>
<td>2,359</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Clinic</td>
<td>540/545</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Demo Fac</td>
<td>550/555</td>
<td>0 ad hoc</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Animal Fac</td>
<td>560/570</td>
<td>0 ad hoc</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Greenhouse</td>
<td>580/585</td>
<td>0 ad hoc</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Assembly</td>
<td>610/615</td>
<td>3,356</td>
<td>3,464</td>
<td>(108)</td>
<td>-3%</td>
</tr>
<tr>
<td>Exhibit</td>
<td>620/625</td>
<td>3,468</td>
<td>3,837</td>
<td>(369)</td>
<td>-10%</td>
</tr>
<tr>
<td>Food</td>
<td>630</td>
<td>8,790</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Child Care</td>
<td>640</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lounge</td>
<td>650</td>
<td>3,933</td>
<td>3,525</td>
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</tr>
<tr>
<td>Merchandising</td>
<td>660</td>
<td>117</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Recreation</td>
<td>670</td>
<td>1,538</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Meeting/Conf</td>
<td>680</td>
<td>429</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Data Produc</td>
<td>710/715</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Storage</td>
<td>720/745</td>
<td>9,756</td>
<td>9,696</td>
<td>60</td>
<td>1%</td>
</tr>
<tr>
<td>Central Service</td>
<td>750</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Haz Mat</td>
<td>760</td>
<td>0 195</td>
<td>(195)</td>
<td>-100%</td>
<td>-100%</td>
</tr>
<tr>
<td>Health</td>
<td>800</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Residence</td>
<td>900</td>
<td>0 ad hoc</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Unclassified</td>
<td>050</td>
<td>35,089</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Other Org</td>
<td>090</td>
<td>106,929</td>
<td>ad hoc</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL NASF</strong></td>
<td></td>
<td><strong>494,565</strong></td>
<td><strong>548,835</strong></td>
<td><strong>-54,270</strong></td>
<td><strong>-10%</strong></td>
</tr>
</tbody>
</table>
SPACE NEEDS TECHNOLOGY CONSIDERATIONS

Technology is the underpinning of all of UMUC’s programs and services. It is the goal of the University to offer top-quality educational opportunities to students in Maryland, the region and beyond. UMUC also wishes to create a work environment that empowers and supports its employees, and provides opportunities for professional career development. The University recognizes that these criteria are necessary to recruit and retain high-quality, student-focused faculty and staff. To accomplish these goals, UMUC is implementing an Information Technology Plan that shifts the focus from technology service management to technology solution delivery. Among the strategies being implemented are:

- The utilization of technologies that enable students, faculty, staff, and administrators to access the information from a wide variety of platforms, including handheld devices, tablet devices, and laptop and desktop computers
- The creation of an infrastructure that supports a learning management system that replaces WebTycho with Social Collaboration software like Jive, these changes require an increased reliance on cloud technologies
- Greater incorporation of technologies such as WebEx to foster video web conferencing, online meetings, and desktop sharing

Implementing these technology solutions will enable greater remote access to information, as well as improved capacities for virtual classroom and workplace collaboration. This increased virtual capacity will make available some physical space that can be utilized in more flexible ways. The technology plan will also allow UMUC to increase both its student enrollment without an immediate increase in the amount of physical space.

INSTRUCTIONAL SPACE NEEDS

Shifting Modalities

UMUC utilizes a variety of delivery methods, including online, face-to-face [F2F], and hybrid instruction. The vast majority of its classes are online programs, which have grown in tandem with UMUC’s FTE enrollment. Focusing on stateside program delivery, the percentage of credit hours taught online has increased from 83% to 90% over the past five years; UMUC expects this percentage to be maintained at 90% through 2022. Over the same five years, regional instruction and hybrid instruction, a mixture of face-to-face and online, has declined by 18%. UMUC expects face-to-face and hybrid delivery to stabilize with essentially no growth over the next ten years.

Over the last five years, the proportion of face-to-face to hybrid instruction delivery has undergone an important transition. Today, almost all of UMUC’s on-campus, face-to-
face courses at both the undergraduate and graduate levels have transitioned to hybrid courses that blend traditional classroom delivery with online instruction. In 2012, there were almost no exclusively face-to-face courses. At the graduate level, the percentage of exclusively face-to-face classroom delivery had significantly decreased, but not to the same degree as undergraduate instruction.

Room and Station Utilization

USM’s guideline for classroom room utilization (known as room utilization rate [RUR]) is not applicable to UMUC as USM’s guidelines are based on a very different daytime delivery schedule. As mentioned previously, UMUC’s on-campus instruction occurs either in the evening, typically between 6:00pm and 10:00pm, Monday through Thursday, or on the weekend. UMUC’s practice of utilizing other institution’s classrooms for face-to-face and hybrid instruction negates the low daytime utilization (the room is utilized for traditional daytime instruction by the host institution) (see Graphic 5.6). UMUC has also achieved effective room and station utilization rates at the facilities it manages (both owned and leased) (see Graphic 5.7).

Room Fit-Out Standards

UMUC believes strongly that hybrid instruction, while proportionately small compared to its online delivery, should be recognized and supported with the same attention to quality. The University understands that some students prefer hybrid courses because they value the face-to-face classroom experience, and is committed to ensuring that the face-to-face portion of its hybrid instruction will be delivered in classrooms consistent with its quality standards. As such, classrooms need to be technology enriched with wi-fi and extensive multimedia capabilities, and furniture systems should be mobile and highly reconfigurable.

WORKPLACE SPACE NEEDS

Workplace Growth – Faculty

UMUC long ago transitioned from an institution relying solely on full-time faculty to one in which instruction is delivered overwhelmingly by adjunct faculty located all over the nation. Adjunct faculty can deliver instruction from the location of their choice; therefore, UMUC does not provide them with workspace. This approach allows UMUC to scale instructional delivery up or down with minimal impact on facility needs. Adjunct faculty are supported by a group of full-time faculty (located mainly at the Academic Center at Largo and referred to as “Collegiate” faculty) that primarily service administrative needs and develop course curricula. By Fall 2022, the University expects to have 276 FTE on-campus faculty members, representing an increase of 21% from 228 in 2012.
Workplace Growth – Staff

The number of FTE staff is projected to grow to 1,289 by 2022, comprising an increase of 19% from 1,079 in 2012. The slower growth in staff, versus faculty, reflects greater efficiency associated with UMUC’s streamlined approach to managing the academic enterprise. The majority of UMUC’s staff in 2022 is expected to be full-time (97%).

[Graphs showing utilization rates for Graduate and Undergraduate for Largo, Dorsey, and Shady Grove stations]
Graphic 6.1
Satellite Image of the Washington/Baltimore Metropolitan Region
Source: Bing Maps
This section defines UMUC’s and the FMP’s objectives. Collectively, they form the framework for the FMP’s recommendations as detailed in the final section, Strategic Responses.

SUSTAINABILITY GUIDELINES

To Be a Leading Sustainable Institution

Since the beginning of the FMP effort, UMUC leadership has clearly stated its intent to become a recognized leader in sustainable practices among its peers. This Sustainability Guidelines portion outlines the key points of PlanMaryland, UMUC’s Climate Action Plan: 2010-2050 [CAP 2050], and additional sustainability guidelines per the FMP.

PlanMaryland, enacted in December 2011, outlines Maryland’s statewide policy plan for sustainable growth with the intent to limit urban sprawl and preserve the state’s agriculture and natural wildlife areas. CAP 2050 advances PlanMaryland’s goals by charting a course for UMUC to achieve carbon neutrality by 2050. The FMP advances both efforts by:

- Prioritizing behavioral change as the first method of responding to growth
- Avoiding new construction
- Locating working and learning facilities where people already live in order to shorten commutes and reduce carbon emissions

PlanMaryland Conformance

PlanMaryland sets forth guidelines for future development with the intent to limit urban sprawl and preserve agriculture and natural wildlife areas within the state. The relevant objectives and manners of PlanMaryland conformance are:

- To encourage sustainable development and protect quality of life
  - The FMP prioritizes behavioral change as the first method of responding to institutional change and growth, using targeted renovations as a second method, and acquisition of existing facilities only as a final resort. UMUC intends to always avoid new construction.

- To develop land at a pace consistent with growth in population and housing
  - UMUC intends to avoid developing new land, instead focusing on the adaptive reuse of existing development, and by extension, the preservation of undeveloped land.

- To strengthen existing cities and communities and reduce tax burdens
  - UMUC’s geographic positioning strategy is to be distributed across existing population centers, rather than compelling people to travel long distances between work and home and across the already congested region. This strategy also helps to maintain economic activity in existing communities.
To reduce automobile dependency

- The remote-work and geographic strategies of the FMP are intended to reduce automobile dependence by reducing vehicle miles traveled (VMTs) required to get to work, as well as by locating future facilities in close proximity to Metro stations and the future Purple Line.

To increase access to transit options

- The remote-work strategies of the FMP are intended to reduce automobile dependence and increase transit options by locating future facilities within walking distance of mass transit.

**UMUC Climate Action Plan: 2010-2050 (CAP 2050)**

As a distance-learning university, traditional metrics used to compare university carbon footprints cast UMUC in a very favorable light, but UMUC aspires to surpass these standards and achieve carbon neutrality by 2050. As a signatory of the American Colleges and Universities President’s Climate Commitment, UMUC is guided by its own UMUC Climate Action Plan: 2010-2050 (CAP 2050). This plan identifies UMUC’s two largest sources of emissions, both of which are applicable to the FMP:

- Purchased electricity (45% of greenhouse gas emissions)
- Student and employee commuting (45% of greenhouse gas emissions)

Significant amounts of UMUC’s CAP 2050 mitigation strategies involve indirect action, such as “offsets” and anticipated “improved [vehicle] fuel efficiency.” The FMP expands and builds upon these efforts with improved direct actions described later in this section (see Appendix D for more on the FMP’s potential emission reductions).

A significant development since CAP 2050 is the advancement and affordability of distance learning and working capabilities. CAP 2050 assumed that continued UMUC growth would yield continued growth in VMTs, but that is no longer the case due to advancements in communication technology. The following assumptions apply to UMUC:

- Growth in student enrollment in hybrid courses, even in Maryland, is not expected to materially increase VMTs and associated emissions
- Existing employee VMTs are expected to fall due to increased remote-work strategies (described in the next section of this report, Strategic Responses)
- VMTs generated by employee growth at UMUC campuses is to be mitigated by the same remote-work strategies, thereby causing UMUC’s on-site employee population to grow at a slower rate than UMUC’s overall employment population, or the Washington/Baltimore metropolitan region’s population

To further advance the goals set in place by CAP 2050, the FMP outlines additional sustainable planning drivers.
Preclude/Mitigate Facilities Need

One of the least sustainable things that an institution can do is build new facilities. By some measures, the construction of a new building generates a volume of waste equal to the building itself (waste that generally ends up in landfills). Much of this waste is generated in the fabrication processes for construction products, so the most effective way to reduce this waste is to avoid constructing new buildings.

Though not specifically addressed in CAP 2050 (since waste is not directly related to greenhouse gases), the reduction of UMUC’s waste stream is a clear goal. As part of the FMP, UMUC will pursue this goal by reducing its need to build new facilities despite institutional growth. UMUC aims to accomplish this by better utilizing remote-working strategies, thereby improving the quality of UMUC employees’ work experience as well as enabling its facilities to support a larger workforce.

Reduce the Environmental Impact of Commuting

The Washington/Baltimore metropolitan region, as one of the most congested regions in the nation, contributes significant amounts of carbon emissions associated with long car commutes and vehicle idling in traffic jams. Decreasing the VMTs by UMUC employees not only reduces stress and improves quality of life, but also reduces associated carbon emissions. CAP 2050 identified the following transportation goals:

- Facilitate ridesharing by employees and students
- Install and encourage the use of videoconferencing facilities
- Expand and encourage flexible scheduling and telecommuting options for employees

The FMP builds upon the last point by charting a measurable roadmap for reducing existing VMTs and preventing additional VMTs as the institution grows. See Appendix D for further information regarding how VMTs can be reduced.

Utilize the Purple Line

UMUC’s Adelphi campus has the unique advantage of being located within close proximity to the proposed new “Purple Line” light rail. The station for this line, to be situated on the east side of the campus, will connect Washington’s Maryland suburbs and will run from the Bethesda Metro Station in the west to the New Carrollton Amtrak/Metro station in the east.
IMPROVED EMPLOYEE SATISFACTION GUIDELINES

To Be an Employer of Choice

To be a leader in sustainable practices, the University must not only address environmental sustainability, but also institutional sustainability. UMUC recognizes that it must compete for high quality recruits in a region where the best and brightest can be selective about employment. The University also recognizes that the campuses at Adelphi and Largo are not easily accessible for many people in the Washington/Baltimore metropolitan region due to traffic congestion. UMUC intends to counter these issues by improving the numerous qualitative measures on which public institutions can often out-compete private-sector employers. This also means leveraging UMUC’s distance delivery and technology capabilities to achieve better workflow, innovation and work/life balance.

Reduced Commuting Stress

Reducing commuting times and VMTs not only benefits the planet, it also benefits employees and families impacted by long commutes. When it is implemented effectively, working remotely offers greater flexibility and can increase productivity. It also reduces or eliminates the amount of time spent in a car, train, or bus, which is time that can be spent on activities that an employee most cares about (whether it is family time, personal activities, or even more time spent on exciting work initiatives). This tends to improve employee satisfaction and aid in retention.

Better Productivity

Flexible schedules and flexible environments allow employees to structure their day to best respond to their own demands, both work-related and personal. In order to maintain productivity, UMUC will provide proper support in the form of a robust, flexible, and ever-present virtual workplace. This includes:

- Providing open and seamless mobile working and communication platforms
- Offering 24/7 technical support

In many cases, the operational cost of providing this support negates other operational savings related to working remotely. However, it is important to note that many of the supporting technology staff will benefit from this arrangement by remotely providing support services for the virtual workplace.

Better Work Environments

The previous sections have focused on enabling remote-work as a way of improving the working experience, but “place” still matters. It is important that this physical workplace support a wide range of work and communication activities. Employees will continue to come together, face-to-face, for a variety of reasons; not only for collaboration and social connection, but also
to escape the distractions of home, to work “alone together”, or simply to craft a “disciplined” schedule.

The University intends its work environments to be:

- Clean and safe
- Comfortable and inviting
- Flexible and media-enriched
- Supportive of on-demand work processes, some collaborative and some highly focused, through an array of spaces accessible to sunlight and outside views

**IMPROVED COLLABORATION GUIDELINES**

*Providing a Full Array of Workspaces*

UMUC’s existing workplaces provide a range of work environments, but the breadth of this range will become increasingly critical in the future. In particular, UMUC intends to provide a full range of collaborative work environments available to all employees, beyond formal conference rooms, including:

- Informal conferencing
- “Alone together” space
- Pin-up space and “war room” environments
- Areas that combine working and eating

*Better Conferencing Technology*

Many new technology tools for videoconferencing have become available in the past few years, it is now commonly used in many work and educational settings for both formal and informal collaboration. The advent of new technologies has increased flexibility in the workplace, allowing physical mobility and creating opportunities for teamwork among groups or individuals in remote locations. UMUC intends to integrate videoconferencing across all aspects of its distance-work platforms.

*Informal Learning*

Informal learning is an important but often overlooked aspect of the workplace. This refers to learning that takes place outside of formal settings and without formal direction. UMUC intends to design its workplaces to facilitate “always-on” workplace learning, meaning that greater visibility equals greater mutual awareness and a greater sharing of best practices. Central to this concept is:

- Erasing visual, social and hierarchical boundaries
- Encouraging interaction among various disciplines and peer groups, and between faculty and students
INSTRUCTIONAL ENVIRONMENT GUIDELINES

Though UMUC is a primarily online institution, there remains a need for some face-to-face instruction. A clear set of guidelines for these instructional environments helps the University to make decisions about its existing classroom inventory as well as any new instructional space. UMUC intends for these guidelines to be uniformly applied so that all instructional environments (owned, leased, on-demand, etc.) conform and provide a consistent learning experience. Planning guidelines for instructional environments include the following:

▪ Uniform lighting over the student work area, with optional, dimmable zoned lighting as it offers the ability to manipulate lighting levels based on class function and daylighting. Lighting controls at the instructor lectern and on the entry wall by the door allow the instructor to easily change lighting levels.

▪ Ample display surfaces in classrooms to facilitate group/collaborative learning. Screens and display surfaces should be unobstructed and viewable from all points in the classroom.

▪ Electrical and audio-visual services configured to support multiple seating arrangements. Ample power and data network connections to be provided to support projection and computer plug-in by both faculty and students.

▪ All classrooms to be equipped with the same or similar equipment, including ceiling-mounted projectors and technology-enabled lecterns. This allows for faculty and students to become familiar with how to utilize the classroom and its resources, thereby minimizing classroom setup time and maximizing utilization.

▪ Fixed furnishings will be avoided. All furnishings will be mobile and easily adaptable to multiple seating arrangements and instructional methods.

CAMPUS AND REAL ESTATE PLANNING GUIDELINES

Given UMUC’s unique needs as a primarily online institution, it is important to take a strategic approach to the procurement of new space. Flexibility and adaptability are key considerations in the selection of any new space. Low-commitment acquisitions, such as rented office or classroom space, are preferable to permanent additions as they allow the institution to remain nimble in times of change. The following planning guidelines apply to the future expansion of physical facilities:

▪ Avoid new construction

▪ Avoid the acquisition of new permanent/owned facilities

▪ Seek opportunities for medium- or short-term lease agreements to accommodate new space needs (similar to that of Dorsey and Quantico)

▪ Prioritize physical expansion (only if required) in locations that appeal to concentrations of desirable future employees and students, or clusters of existing employees and students with long commuting times to Adelphi and Largo

▪ All new physical facilities to be walkable, convenient, and pedestrian-safe; proximity to the nearest metro station should be no more than a seven-minute walk
Graphic 6.2
Possible Work/Learn Locations with Purple Line

Graphic 6.3
Route of Purple Line through Adelphi campus
7 STRATEGIC RESPONSES

Graphic 7.1
Work Cafe Seating,
Accenture’s Houston Office
Today UMUC has 1,307 employees, and is projecting an increase of 20% to 1,565 employees by 2022. This section provides UMUC with strategies to accommodate this growth for the next 10 years. It is structured in three tiers.

Each tier allows for a different amount of staff growth and relies on various approaches to achieve these increases. In all instances the goal is to maximize existing facilities through changes in workflow. To understand these changes, UMUC’s employees are classified into three types:

- **Resident Worker** – A worker who when on-site is provided with “owned” workspace.
- **Remote Worker** – A worker is considered ‘remote’ anytime they are off-site.
- **Mobile (Hoteling) Worker** – A worker who when on-site is not provided with “owned” workspace. Mobile workers move between different types of workspaces that match the type of work being performed. These different types of work spaces are used in shifts by different people over the course of the day. This activity is called “hoteling.” Storage space such as a locker and/or a mobile pedestal cabinet supports this type of worker.

Tier 1 accommodates additional growth through initiatives that focus on behavioral change. Tier 2 allows for staff growth through the renovation of existing facilities. If the first two tiers prove insufficient to accommodate growth, then the University will acquire additional space as defined in Tier 3. Graphic 7.3 summarizes the growth capacity, type of worker, and effectiveness of each strategy.

To understand UMUC’s facility needs in 2022, the FMP planning team determined what percentage of work will happen remotely. The analysis reviewed the effectiveness of 10%, 20%, 30%, or 40% remote-work. The results showed that UMUC’s current population already works remotely 10% of the time that 20% remote-work could be attained without much cultural change. However, any percentage beyond 30% remote-work would stress UMUC’s existing workflow and force dramatic physical and operational changes. Based on this, UMUC chose a 20% remote-work target across the entire employee population (refer to Graphic 7.4). This 20% is used in Tiers 1, 2 and 3.
## STRATEGIC RESPONSES

### Graphic 7.3
**Summary of Tiers**

<table>
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<th>Tier</th>
<th>Behavioral Change</th>
<th>Facility Change</th>
<th>Facility Acquisition</th>
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<tr>
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<td>1,628</td>
<td>1,776</td>
<td>&gt;1,776</td>
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<td>20% Remote 80% Resident</td>
<td>20% Remote 80% Mobile/Resident</td>
<td>20% Remote 80% Mobile/Resident</td>
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<td>Tier 3</td>
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<td>Yes</td>
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<td>Worker Types</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hoteling</td>
<td>Benefits</td>
<td>- Reduced number of commutes - Reduced emissions - Increased schedule flexibility - Improved employee satisfaction - Improved employer attractiveness</td>
<td>- Realizes all of the same benefits of Tier 1, plus: - Improved “effectiveness” of space utilization - Improved collaboration - Work/learn locations in existing facilities</td>
</tr>
<tr>
<td>Enabling Initiatives</td>
<td>- Comprehensive remote-work policy - Training for staff and management - Training for helpdesk - Investments in collaborative technology - Results-oriented management</td>
<td>- Requires all of the same initiatives in Tier 1, plus: - New furniture - New workplace design</td>
<td>- Requires all of the same initiatives in Tier 2, plus: - Additional leased/acquired facilities</td>
</tr>
</tbody>
</table>

### Graphic 7.4
**Capacity of Tiers**

- **2012 On-Site FTE Capacity**
  - Potential Workforce Population Supported with Tier 1: 1,307
  - Potential Workforce Population Supported with Tier 2: 1,776
  - Potential Workforce Population Supported with Tier 3: >1,776

- **2022 FTE Employment Projection of 1,565**

- **Total Potential Employee Headcount (all facilities)**
  - 1,000
  - 2,000
The following sections define in detail the three tiers. With 1, the University accommodates its 10 year employee growth projection of 1,565. Tiers 2 and 3 exceed the growth projections. They are included should future circumstances dictate otherwise.

**TIER 1 – BEHAVIORAL CHANGE**

The volume of UMUC’s online instruction easily scales up or down without significant impact to instructional or office space needs. It is logical to extend this scalable approach to workspace needs for faculty and staff. This allows UMUC to manage employment growth without requiring new facilities or significant changes to existing facilities.

*Remote-Work Potential*

Presently, UMUC permits remote-working, but implementation is left to individual manager’s discretion. Better integration and coordinated implementation of these policies would enable the University to leverage unoccupied seats, workstations, and offices. Increased remote working would provide many employee benefits, including:

- Reduced commute time for employees (by less frequent commutes)
- Increased schedule flexibility

The result is increased job satisfaction for existing employees. The policies are also an asset in the recruitment of future employees who reside outside of northeast Washington and the Maryland suburbs.
Extent of Tier 1 Effectiveness

It is important to restate that Tier 1 does not change the design, organization, or furnishing of UMUC’s workplaces; it only changes behavior. When remote-work is not accompanied by facilities change, vacant workspace generally remains unoccupied. Therefore, the ability of remote-work to increase a facility’s capacity is limited. This is because remote workers when visiting:

- May be hesitant to infringe on the perceived “territory” of others
- May not use messy workspaces left by resident workers
- May not be able to locate an available workspace when needed

Based upon the concerns noted above, it is anticipated that only 50% of vacant workstations would actually be utilized. This means that for Tier 1, a remote-work percentage of 20% only increases the employee capacity of UMUC’s facilities by 10%.

Approach to Improving Virtual Collaboration

Part of Tier 1’s approach to behavioral change relies on more effective virtual collaboration which improves communication between on-site and remote locations. It requires introducing new hardware and software into the workflow of UMUC’s employees. Today, different departments at UMUC use distance collaboration technology in various ways. For some, an audio conference call is sufficient, but for others a computer desktop sharing application is the norm. UMUC intends to implement videoconferencing as the norm.

To accomplish this, UMUC intends to support a variety of technological platforms. With this approach so employees can choose the videoconferencing platform with which they are most comfortable. This requires a significant technology investment, as well as staff training for employees and Analysis, Planning and Technology’s [APT] helpdesk services. For software, this involves finding low-cost, easily implemented solutions for the home, office, or mobile device. For hardware, devices like Mediascape should be widely available so on-site employees can easily shift from desk side conversations to areas designed to accommodate multiple participants.

Approach to Supporting Tier 1 with Change Management Practices

Implementing remote-work and virtual collaboration is challenging, and employees need institutional support. Training programs for general and management staff are required for successful implementation.

Remote-work also requires managers to change how they evaluate their employees. Without in-person oversight, it can be difficult to gauge effectiveness. Instead, performance must be measured by results, not hours in the office. Management training programs must provide new tools for this cultural change.
TIER 2 – FACILITY CHANGE

To accommodate additional growth, Tier 2 introduces the concept of “mobile workers” and renovates existing facilities to support them. Together they create an environment that increases employee capacity. The renovations can be modest or dramatic, but they transition the physical workplace from a layout organized by “owned” spaces to a shared layout that offers far more seating types (see Graphics 7.7-8 and 7.9-20). In Tier 2 the relationship between an employee and his or her workspace is redefined.

Approach to Shifting Employees from “Residential Workers” to “Mobile Workers” via Hoteling

Central to this redefinition is the concept of “hoteling.” Although the corporate workplace has used this approach for several decades, hoteling is new to university environments.

Hoteling optimizes the use of space through the sharing of a large range of workstation set-ups and numerous seating options. Typically, workstations are available on a first-come, first-served basis, and rooms (i.e. conference and focus) require a reservations system. Workspace resources like multimedia and collaboration spaces must be liberally distributed. It has been determined that employees typically utilize workplace resources if they are within 50 to 75 feet of where they are working.

Some potential fatigue points for the hoteling strategy include:

▪ Difficulty ceding “ownership” of a permanent office space. Unlike the traditional system of assigned seating, workstations must be cleared for the next person to use. This requires monitoring.

▪ Persistent use of the same space, regardless of the work being performed. While all employees will develop favorite spots, facilities and department managers should be proactive about suggesting alternatives.

▪ Competition for some spaces. Popular spaces should be observed and their attributes replicated elsewhere in order to minimize competition.
### Private Offices – Semi-resident, and enclosed
- Some existing private offices remain while others are repurposed.
- Residents of remaining offices will need to leave their office ‘useable’ by others when they are off-site, this means leaving a clean desk environment.

### Workstations – Semi-resident, and open
- Existing workstations are converted to contemporary systems which feature improved sightlines that are less isolating.
- Organized into “neighborhoods” in order to control acoustics.

### Workstations – Non-resident, and open
- Existing workstations are converted to contemporary systems which feature improved sightlines that are less isolating.
- Organized into “neighborhoods” in order to supplement semi-resident workstations, allowing mobile workers to embed into a group’s area and collaborate on in-depth projects.

### Focus Room Seats – Non-resident, enclosed
- “heads-down” work booths.
- These are small, acoustically isolated and visually screened spaces intended for solo-work.
- They are significantly smaller than private offices.
THE ARRAY OF WORKPLACE OPTIONS

Conference Seats – Non-resident, enclosed and open
- In this model some existing private offices are repurposed to serve as conference rooms for 4 to 6 people
- Other areas will need to be repurposed for larger conference rooms of 10-12 people
- All conference rooms should have extensive multimedia capabilities

On Demand Seats – Non-resident, and open
- Generally provided at 1 seat for every 5 staff
- However, there should be enough of these seats to allow for “all-hands-on-deck” days

Work Café Seats – Non-resident, and open
- On-site food service areas and lounges should do double duty, providing seating during lunch, but also providing informal conferencing space during non-lunch times
- Seating should be varied and consist of café-style, booth, banquet, stand-up counter, and provide a comfortable atmosphere for solo “alone-together” as well as small group work
- Anticipated work café seating capacity is approximately 1/3 of lunch seating capacity
7 STRATEGIC RESPONSES

Graphic 7.9
Asurion's Atlanta Software Development Offices
Stephen Searer, June 7, 2013,
http://officesnapshots.com/2013/06/07/asurions-atlanta-software-development-offices/

Graphic 7.10
BBC Worldwide Americas Inc. in New York, Perkins Eastman

Graphic 7.11 and 7.12
BBC Worldwide Americas Inc. in New York, Perkins Eastman

Graphic 7.13 and 7.14
BBC Worldwide Americas Inc. in New York, Perkins Eastman
STRATEGIC RESPONSES

Graphic 7.15 and 7.16
NBC Universal in New York, Perkins Eastman

Graphic 7.17 and 7.18
Base One Group Offices
Stephen Searer, May 27, 2013
http://officesnapshots.com/2010/05/27/base-one-group-offices/

Graphic 7.19 and 7.20
BGT Partners’ Headquarters Stephen Searer, February 15, 2012
http://officesnapshots.com/2012/02/15/bgt-partners-award-winning-headquarters/
For illustrative purposes only, diagrams are shown (Graphics 7.21-7.23) that depict the current north portion of the first level of the Administration Building. These diagrams compare different degrees of renovation, from an all resident, to an all mobile workplace. Specifically they show:

**Graphic 7.21**
- The space as it currently exists, featuring numerous private enclosed offices, 5’-6” cubical dividers and few windows

**Graphic 7.22**
- The same physical space but with varied furniture systems that feature lower dividers
- The lower dividers allow for greater penetration of sunlight from the few available windows (from almost 5% of the space receiving natural light to almost 15%), as well as greater visibility and connection across the workspace
- Neighborhoods are maintained, but anchored by collaboration space that is adjacent to the area’s main circulation routes
- Heads-down, focused work is located at the periphery of the work area

**Graphic 7.23**
- The same physical space but with key walls removed and varied furniture systems that feature even lower dividers
- Fewer walls and lower dividers allow for a significantly greater amount of sunlight from the few available windows (from almost 5% of the space receiving natural light to almost 40%)
- Fewer walls and lower dividers allows for greater visibility and connection across all of the workspace, while also reducing isolation and creating a sense of security in the more remote areas of the work space
- Neighborhoods are maintained but anchored by collaboration space that is adjacent to the area’s main circulation routes
- Heads-down focused work is located at the periphery of the work area

As part of the FMP, a “Workplace Capacity Model” was developed by the planning team to help UMUC anticipate the interplay and impact of various levels of resident, mobile (hoteling), and remote workers. Graphics 7.24-5 are examples of this Excel model.
Graphic 7.21
Typical Existing Space Configuration
- Enclosed Conference
- Collaboration Seats
- Open Conference
- Focused Benching
- Focus Rooms

Graphic 7.22
Tier 3 - Furniture-Solution Only Space Reconfiguration Strategy

Graphic 7.23
Tier 3 - Partition and Furniture Space Reconfiguration Strategy
### Workplace Capacity Model

Existing FTE employees with **100%** dedicated workspace seats

#### Definitions
- Population A: Resident Workers (with dedicated workspaces)
- Population B: Mobile Workers (with non-dedicated workspaces)
- Population C: Visitors (with non-dedicated workspaces)

#### Table: Strategic Responses

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<td><strong>3,507</strong></td>
<td>1,176</td>
<td>1,046</td>
<td>915</td>
<td>784</td>
<td><strong>523</strong></td>
</tr>
<tr>
<td>19</td>
<td><strong>3,507</strong></td>
<td>1,176</td>
<td>1,046</td>
<td>915</td>
<td>784</td>
<td><strong>523</strong></td>
</tr>
<tr>
<td>20</td>
<td><strong>3,507</strong></td>
<td>1,176</td>
<td>1,046</td>
<td>915</td>
<td>784</td>
<td><strong>523</strong></td>
</tr>
<tr>
<td>21</td>
<td><strong>3,507</strong></td>
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<td>1,046</td>
<td>915</td>
<td>784</td>
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</tr>
<tr>
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<td><strong>3,507</strong></td>
<td>1,176</td>
<td>1,046</td>
<td>915</td>
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</tr>
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</tr>
<tr>
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<td><strong>3,507</strong></td>
<td>1,176</td>
<td>1,046</td>
<td>915</td>
<td>784</td>
<td><strong>523</strong></td>
</tr>
</tbody>
</table>

#### Additional/Expanded Facility Employee Capacity

**Total Workers Serviced:** 1,307, 1,372, 1,438, 1,503, 1,568
### Workplace Capacity Model

Existing FTE employees with 70% dedicated workspace seats

<table>
<thead>
<tr>
<th>Base Worker Count (on- and off-site) (Population A+B)</th>
<th>1,307</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desk-Staff Ratio</td>
<td>1:1.0</td>
</tr>
</tbody>
</table>

#### Definitions
- **Population A**: Resident Workers (with dedicated workspace)
- **Population B**: Mobile Workers (with non-dedicated workspace)
- **Population C**: Visitors (with non-dedicated workspace)

#### Strategic Responses

<table>
<thead>
<tr>
<th>Line</th>
<th>Description</th>
<th>Formula</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
<th>Value 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Percent of All Workers Daily On-Site</td>
<td>Population A+B from Line 1</td>
<td>100%</td>
<td>90%</td>
<td>80%</td>
<td>70%</td>
<td>60%</td>
</tr>
<tr>
<td>4</td>
<td>All Workers Daily On-Site</td>
<td>Population A+B from Line 1, modified by Line 2</td>
<td>1,307</td>
<td>1,176</td>
<td>1,046</td>
<td>915</td>
<td>784</td>
</tr>
<tr>
<td>5</td>
<td>Daily On-Site Visitors</td>
<td>(Multiplier of Line 4) / Generates Population C</td>
<td>55%</td>
<td>65</td>
<td>59</td>
<td>52</td>
<td>46</td>
</tr>
<tr>
<td>6</td>
<td>Daily On-Site Population</td>
<td>(Modified Population A+B from Line 4, plus Population C from Line 5)</td>
<td>1,372</td>
<td>1,228</td>
<td>1,093</td>
<td>961</td>
<td>923</td>
</tr>
<tr>
<td>7</td>
<td>Daily Off-Site Remote-Worker Population</td>
<td>(Line 1 - Line 4)</td>
<td>0</td>
<td>131</td>
<td>261</td>
<td>392</td>
<td>523</td>
</tr>
<tr>
<td>8</td>
<td>Resident Worker Population with Dedicated Workspaces</td>
<td>(Multiplier of Line 5, defines Population 6)</td>
<td>70%</td>
<td>915</td>
<td>823</td>
<td>732</td>
<td>640</td>
</tr>
<tr>
<td>9</td>
<td>Mobile Worker Population Floating Amongst Differing Types of Workspaces</td>
<td>(Result of Line 6, defines Population 8)</td>
<td>30%</td>
<td>392</td>
<td>353</td>
<td>314</td>
<td>274</td>
</tr>
<tr>
<td>10</td>
<td>Dedicated Workspace Seats Required by Resident Workers</td>
<td>(Multiplier of Line 6, cannot be less than Line 8)</td>
<td>100%</td>
<td>915</td>
<td>915</td>
<td>915</td>
<td>915</td>
</tr>
<tr>
<td>11</td>
<td>Collaborative Seats Required by Resident Workers</td>
<td>(Multiplier of on-site Population A, Line 8)</td>
<td>15%</td>
<td>137</td>
<td>124</td>
<td>110</td>
<td>96</td>
</tr>
<tr>
<td>12</td>
<td>Minimum Mobile Workspace Seats and Collaborative Seats Required</td>
<td>(Sum of on-site Population B + Population C, Line 9)</td>
<td>15%</td>
<td>457</td>
<td>412</td>
<td>366</td>
<td>320</td>
</tr>
<tr>
<td>13</td>
<td>Additional Collaborative Seats for Mobile Workers and Visitors</td>
<td>(Multiplier of on-site Population B + C, Line 12)</td>
<td>10%</td>
<td>46</td>
<td>41</td>
<td>37</td>
<td>32</td>
</tr>
<tr>
<td>14</td>
<td>Total Seats Required</td>
<td>(Sum of Lines 10 through 13, includes all workspace seats and collaborative seats)</td>
<td>1,555</td>
<td>1,491</td>
<td>1,427</td>
<td>1,363</td>
<td>1,299</td>
</tr>
<tr>
<td>15</td>
<td>Total Collaborative Seats Required Less Dedicated Resident Worker Workstation</td>
<td>(Line 14 - Line 10)</td>
<td>640</td>
<td>576</td>
<td>512</td>
<td>448</td>
<td>384</td>
</tr>
<tr>
<td>16</td>
<td>Unused Dedicated Resident Workspaces</td>
<td>0</td>
<td>91</td>
<td>163</td>
<td>274</td>
<td>396</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Effective Ability to Utilize Unused Dedicated Resident Workspaces</td>
<td>50%</td>
<td>0</td>
<td>46</td>
<td>91</td>
<td>137</td>
<td>183</td>
</tr>
<tr>
<td>18</td>
<td>Enclosed Workstations (1-person + guest)</td>
<td>(of Line 15)</td>
<td>10%</td>
<td>64</td>
<td>58</td>
<td>51</td>
<td>45</td>
</tr>
<tr>
<td>19</td>
<td>Enclosed Workstations (1-person only)</td>
<td>(of Line 15)</td>
<td>10%</td>
<td>64</td>
<td>58</td>
<td>51</td>
<td>45</td>
</tr>
<tr>
<td>20</td>
<td>Open Workstations</td>
<td>(of Line 15)</td>
<td>20%</td>
<td>192</td>
<td>173</td>
<td>154</td>
<td>134</td>
</tr>
<tr>
<td>21</td>
<td>Enclosed Conferencing</td>
<td>(of Line 15)</td>
<td>15%</td>
<td>96</td>
<td>86</td>
<td>77</td>
<td>67</td>
</tr>
<tr>
<td>22</td>
<td>Open Conferencing</td>
<td>(of Line 15)</td>
<td>15%</td>
<td>96</td>
<td>86</td>
<td>77</td>
<td>67</td>
</tr>
<tr>
<td>23</td>
<td>Work Café</td>
<td>(of Line 15)</td>
<td>20%</td>
<td>128</td>
<td>115</td>
<td>102</td>
<td>90</td>
</tr>
<tr>
<td>24</td>
<td>On-Site Lunch Seating</td>
<td>(As a percent of Line 6)</td>
<td>75%</td>
<td>1,029</td>
<td>926</td>
<td>823</td>
<td>720</td>
</tr>
<tr>
<td>25</td>
<td>Work Café Open Seating as a Percent of Lunch Seating</td>
<td>(As a percent of Line 23)</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>26</td>
<td>Additional/Expanded Facility Employee Capacity</td>
<td>(Line 1 - Line 9 + Line 10 + Line 17)</td>
<td>0</td>
<td>85</td>
<td>170</td>
<td>255</td>
<td>340</td>
</tr>
<tr>
<td>27</td>
<td>Total Workers Serviced</td>
<td>(Possible Populations A + B)</td>
<td>1,307</td>
<td>1,392</td>
<td>1,477</td>
<td>1,562</td>
<td>1,647</td>
</tr>
</tbody>
</table>
7 STRATEGIC RESPONSES

Approach to Implementing “Work/Learn Space” at Existing Facilities

Taking a flexible approach to space use is not limited to workplace, but also includes instructional environments. The majority of UMUC’s face-to-face instruction is scheduled in the evening. During the workday these spaces can be used to accommodate employees. This applies to both the Academic Center at Largo, or to a satellite facility such as Dorsey Station. These “Work/Learn Spaces” employ highly flexible, multimodal furniture to maximize facility utilization and create a “hoteling”-style workplace by day that is easily convertible to an active learning space by night.

Approach to Supporting Tier 2 with Change Management Practices

Like previous tiers, training on how to use these spaces is required. UMUC will also consider instituting a facilities management service that acts as a sort of concierge, responsible for:

- Overseeing the reservations system
- Assisting employees in finding workspace that meets their daily needs
- Observing usage patterns (via physical and data means)
- Adjusting the balance of workstations types and locations to meet needs
- Coordinating on-going space use and management training
- Looking for and correcting abuse
TIER 3 – FACILITY ACQUISITION

If growth exceeds the capacity provided in Tiers 1 and 2, then additional space is required. If so, the space must be a new work/learn location that:

- Is (or is in) an existing structure; UMUC does not intend to build a new facility
- Expands UMUC’s geographic footprint in the Washington/Baltimore metropolitan region, and be geographically different from existing facilities
- Is accessible to mass-transit; either the Metro, the Purple Line, or regional rail

These new work/learn facilities, located in areas new to UMUC, will help broaden the University’s geographic appeal to new students and employees without increasing commute times to existing facilities.
Technology Workforce Profile

UMUC’s recent employment trends have identified that finding technology workers in the vicinity of UMUC facilities is a challenge. This section will provide an overview of the characteristics of tech workers within the 50 mile radius of Adelphi to better inform any potential future workspace/student center facility acquisitions. As shown in the charts below, the number of employed residents has grown in all three geographic areas between 2000 and 2011. Maryland has the most employed residents and, specifically, the most employed residents in technology. Virginia, however, is rapidly closing the gap with regard to tech employees.
As illustrated by Graphic A.3, the number of residents employed in computer and mathematical occupations has increased in Virginia and Washington, DC above the average of the study area.

The following chart compares the percent change in both employed residents and employed residents in Computer and Mathematical (Tech) Occupations. In the entire 50 mile radius, employed residents have increased in number by 15%, while those in Tech have increased only by 14%. Both DC and Virginia show stronger growth in employed residents than the area at large, which is restrained by sluggish growth in Maryland.

Of additional interest is where the largest tech-employed worker growth is occurring. While Virginia’s percentage point differential of total employed residents and tech employed residents is almost equivalent to the region at large, Maryland has a negative differential of 5.4 points, and DC shows much stronger growth in tech, with 29% change in tech-employed workers. DC’s growth of technology workers is almost 12% greater than DC’s total change in employed residents. While the actual number of workers living within DC is relatively small, this surge does reflect the urban return and gentrification of DC, increasing its potential as a market for tech employees. The following map shows the share of total employed residents in tech occupations by PUMA [Public Use Microdata Area]. As seen, the greatest shares of tech workers live in Northern Virginia, in particular, Arlington, Fairfax, Alexandria, and Loudoun counties. Within Maryland, the greatest concentrations are in Montgomery, Anne Arundel and Howard Counties. Meanwhile, as shown in by the orange dots, UMUC tech workers live overwhelmingly in the areas of Maryland immediately surrounding Adelphi.
Graphic A.4
Share of Total Employed Residents in Tech Occupations by PUMA, 2011
Source: American Community Survey Public Use Microdata Sample

Graphic A.5
Density of Tech Employees per Square Mile by PUMA, 2011
Source: American Community Survey Public Use Microdata Sample
The maps further refine the talent pool by illustrating the number of residents in tech occupations per square mile within each PUMA. With this refinement, it is easy to see that the greatest concentrations are in Arlington, followed by Alexandria, Falls Church/Annandale, and Reston in Fairfax County and the Sterling/Ashburn portion of Loudoun County.

Characteristics of the Tech Labor Force

The tech labor force in the region is aging. The following chart shows the decline in very young workers (whether this indicates fewer young people entering tech professions or fewer young people working while in school is unknown) and the increasing number of older tech workers.

Graphic A.6
Change in Age of Region Tech Workers, 2000 to 2011

Source: American Community Survey Public Use Microdata Sample
The following figures show the increasing number of classified tech occupations. There are 40% more new classified tech occupations in 2011 (14) than in 2000 (10).

The figure below shows the modal split of tech workers in the region. Not surprisingly, Maryland and Virginia workers are more likely to drive to work than their DC counterparts.
The following tables show the changes in mode of transportation and travel time of tech workers between 2000 and 2011. While car usage has decreased by 8%, travel times have increased.

### Table A.9
**Travel Mode**

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2011</th>
<th>Change in Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>1.0%</td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Car</td>
<td>83.4%</td>
<td>75.6%</td>
<td>-7.8%</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>0.1%</td>
<td>0.2%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Bus</td>
<td>2.0%</td>
<td>4.9%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Streetcar/Trolley</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Subway</td>
<td>7.1%</td>
<td>10.3%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Railroad</td>
<td>1.1%</td>
<td>1.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Taxi</td>
<td>0.1%</td>
<td>0.1%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>0.4%</td>
<td>0.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Walked</td>
<td>1.5%</td>
<td>1.0%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>0.3%</td>
<td>0.6%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Worked at Home</td>
<td>3.0%</td>
<td>4.8%</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

**Source:** American Community Survey Public Use Microdata Sample

### Table A.10
**Travel Time**

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2011</th>
<th>Change in Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Minutes</td>
<td>4.0%</td>
<td>5.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>1-15 Min</td>
<td>18.3%</td>
<td>14.3%</td>
<td>-4.1%</td>
</tr>
<tr>
<td>16-30 Min</td>
<td>33.2%</td>
<td>31.5%</td>
<td>-1.7%</td>
</tr>
<tr>
<td>31-45 Min</td>
<td>23.2%</td>
<td>23.0%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>46-60 Min</td>
<td>13.4%</td>
<td>14.5%</td>
<td>1.1%</td>
</tr>
<tr>
<td>61-75 Min</td>
<td>3.1%</td>
<td>3.7%</td>
<td>0.6%</td>
</tr>
<tr>
<td>76-90 Min</td>
<td>2.4%</td>
<td>4.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>91-120 Min</td>
<td>0.5%</td>
<td>0.7%</td>
<td>0.1%</td>
</tr>
<tr>
<td>&gt;120 Min</td>
<td>1.1%</td>
<td>1.5%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

**Source:** American Community Survey Public Use Microdata Sample
The map above shows that tech workers who live in the outer ring suburbs have higher incomes than those (likely younger workers) living in Northern Virginia, DC, and other, more urban areas. The assumption that more urban tech workers are younger is supported by the percentage of these workers living in non-family households (i.e., alone or with roommates). Almost two-thirds of DC workers are not in family households, along with 59% of Alexandria’s tech residents and 53% of Arlington’s, whereas only 23% of Maryland’s tech workers do not live with families.

<table>
<thead>
<tr>
<th>Region</th>
<th>2000</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>28.5%</td>
<td>27.3%</td>
</tr>
<tr>
<td>MD</td>
<td>56.9%</td>
<td>67.9%</td>
</tr>
<tr>
<td>Montgomery County, MD</td>
<td>23.7%</td>
<td>23.4%</td>
</tr>
<tr>
<td>VA</td>
<td>21.2%</td>
<td>21.0%</td>
</tr>
<tr>
<td>Alexandria, VA</td>
<td>30.7%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Arlington, VA</td>
<td>58.0%</td>
<td>58.5%</td>
</tr>
<tr>
<td>Fairfax County, VA</td>
<td>57.7%</td>
<td>53.0%</td>
</tr>
<tr>
<td>Loudoun County, VA</td>
<td>27.6%</td>
<td>22.8%</td>
</tr>
<tr>
<td></td>
<td>18.0%</td>
<td>17.7%</td>
</tr>
</tbody>
</table>
EXISTING FACILITY USE - BUILDING DETAILS
UMUC’s Adelphi presence includes the Administration Building, the Inn & Conference Center [ICC], the Hotel Building and a multi-story parking structure. Both the Hotel Building and the ICC are operated through a vendor service contract by Marriott. UMUC has made significant investments in the Adelphi facilities over recent years, including a full renovation of the former Student & Faculty Support Center into the present Administration Building and a full renovation of the Inn & Conference Center. Not only have these investments kept the buildings aesthetically current but they also have included key programmatic advances. The Administration Building’s most recent renovation shifted it toward a more open environment with an equal emphasis on mixed “neighborhoods” of reconfigurable office cubical systems and private offices. The just-completed renovation of the ICC re-imagined the existing food service environment as fully integrated with the hotel’s lounge aspects, allowing for an attractive and effective co-mingling of working and dining environments. The renovations of the ICC have proven popular for not only hotel and conference guests but also UMUC Adelphi employees.

Administration Building (Adelphi)

The Administration Building is a four-story structure that houses the majority of UMUC’s Analytics, Planning & Technology [APT] functions as well as its marketing activities. It also contains offices for some administrative functions such as Institutional Advancement and Human Resources. The building has a strong floorplan organization with a central stair and/or open space on each floor, which extends vertically from the entry lobby, as well as secondary “service hubs” in the center of each wing. These service hubs include pantries,
toilets, secondary elevators, and formal and informal conference space. In some instances, access to certain floors is controlled by proximity card readers. The building’s space planning is a balanced approach between private offices and open plan workstations.

The first floor of the building is comprised almost completely of APT offices and cubicles. Marketing utilizes a small amount of storage space on this floor as well. Major space allocations include:

<table>
<thead>
<tr>
<th>Space Allocation</th>
<th>sq ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytics, Planning &amp; Technology [APT]</td>
<td>18,499</td>
</tr>
<tr>
<td>Marketing</td>
<td>957</td>
</tr>
<tr>
<td>Shared Resources</td>
<td>1,963</td>
</tr>
<tr>
<td>Mailroom</td>
<td>1,365</td>
</tr>
</tbody>
</table>

Human Resources [HR] has a large presence on the north side of second floor of the building, with designated offices and cubicles comprising roughly half of the floor plate. Institutional Advancement [IA], Institutional Resolution & Accessibility, Strategic Contracting, and the Office of Diversity occupy the remainder of the second floor. Both HR and IA have reception service points on the central stair space. This floor includes some of the Administration Building’s most significant conferencing space. Major space allocations include:

<table>
<thead>
<tr>
<th>Space Allocation</th>
<th>sq ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources</td>
<td>10,721</td>
</tr>
<tr>
<td>Institutional Advancement</td>
<td>7,988</td>
</tr>
<tr>
<td>Inst. Resolution &amp; Accessibility</td>
<td>1,978</td>
</tr>
<tr>
<td>Diversity</td>
<td>1,358</td>
</tr>
<tr>
<td>Strategic Contracting</td>
<td>655</td>
</tr>
<tr>
<td>Shared Resources</td>
<td>3,185</td>
</tr>
</tbody>
</table>

The third floor is equally divided between Institutional Effectiveness in the northern half and Marketing in the southern half. The Administration Building is connected to the ICC by a climatized bridge with a secure (proximity card reader) connection between each building. Major space allocations include:

<table>
<thead>
<tr>
<th>Space Allocation</th>
<th>sq ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>13,385</td>
</tr>
<tr>
<td>Institutional Effectiveness</td>
<td>11,604</td>
</tr>
<tr>
<td>Shared Resources</td>
<td>2,826</td>
</tr>
</tbody>
</table>
EXISTING FACILITY USE - BUILDING DETAILS

ADELPHI CAMPUS

Graphic B.5
Administration Building Distribution by Department

- Academic Affairs
- Buildings & Grounds
- Finance & Administration
- APT
- Library
- Other - Non-UMUC
- Shared Services
- Student Affairs
- Vendor Services - Facilities
- Vendor Services - Food
- Vendor Services - Hotel

Graphic B.6
Administration Building Distribution by Function

- 100s - Classrooms
- 200s - ClassLab
- 300s - Office
- 400s - Library
- 500s - Special Use
- 600s - Activity Space
- 700s - Service
- 900s - Hotel/Lodging
- Unknown
- Others
EXISTING FACILITY USE - BUILDING DETAILS
ADELPHI CAMPUS

Graphic B.7
Administration Building
Floor Plans by Department

- Academic Affairs
- Buildings & Grounds
- Finance & Administration
- APT
- Library
- Other - Non-UMUC
- Shared Services
- Student Affairs
- Vendor Services - Facilities
- Vendor Services - Food
- Vendor Services - Hotel

ADMIN LEVEL 4

Service Hub
Typical All Floors

ADMIN LEVEL 3

Open Stair

SERVICE HUB

ADMIN LEVEL 2

Service Hub
Typical All Floors

ADMIN LEVEL 1

Main Lobby/Entry
EXISTING FACILITY USE - BUILDING DETAILS

ADELPHI CAMPUS

ADMIN LEVEL 4

ADMIN LEVEL 3

ADMIN LEVEL 2

ADMIN LEVEL 1

Graphic B.8
Administration Building
Floor Plans by Function
- 100s - Classrooms
- 200s - ClassLab
- 300s - Office
- 400s - Library
- 500s - Special Use
- 600s - Activity Space
- 700s - Service
- 900s - Hotel/Lodging
- Unknown
- Others
EXISTING FACILITY USE - BUILDING DETAILS
ADELPHI CAMPUS

Graphic B.9
Inn & Conference Center

Graphic B.10
Data Center at the Inn & Conference Center (Soon to be Moved Off-Site)
The fourth floor of the Administration Building is located underneath the building’s gabled roof and has less available capacity than the lower floors. It houses additional Analytics, Planning & Technology [APT] space in its southern end and the offices of Budget, Finance, Procurement, and Corporate Learning Solutions. Several areas of attic space are also used for various storage needs. Major space allocations include:

<table>
<thead>
<tr>
<th>Department</th>
<th>Space (nasf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>5,645</td>
</tr>
<tr>
<td>Procurement</td>
<td>3,824</td>
</tr>
<tr>
<td>Budget</td>
<td>2,652</td>
</tr>
<tr>
<td>APT</td>
<td>2,388</td>
</tr>
<tr>
<td>Corporate Learning Solutions</td>
<td>1,454</td>
</tr>
<tr>
<td>General Storage</td>
<td>3,523</td>
</tr>
<tr>
<td>Shared Resources</td>
<td>1,589</td>
</tr>
</tbody>
</table>

Inn & Conference Center [ICC] (Adelphi)

The hotel, event/conference, and food service component of the ICC is managed via a vendor service contract by the Marriott Hotel Corporation. The ICC is a complex of connected buildings that range in height from one to five stories. The complex also has a large basement that is occupied by several departments.

Programmatically, the ICC serves a range of needs for UMUC, from administrative office space, conference rooms, hotel rooms, and spaces for special events. APT occupies the building’s north wing on the basement level, primarily with the data center (which is soon to be phased out and moved off-site into the “cloud”).

Other basement spaces include designated back-of-house areas for Marriott (offices, storage rooms) and several large conference rooms. There are also several rooms dedicated to the TV Studio and support spaces for UMUC’s art collection. The offices of UMUC’s Facilities Management and shop areas are also located in the basement of the ICC. Major space allocations include:

<table>
<thead>
<tr>
<th>Department</th>
<th>Space (nasf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriott</td>
<td>14,697</td>
</tr>
<tr>
<td>APT</td>
<td>9,703</td>
</tr>
<tr>
<td>Facilities Management</td>
<td>5,131</td>
</tr>
<tr>
<td>UMUC Art Holdings</td>
<td>3,465</td>
</tr>
<tr>
<td>TV Studio</td>
<td>3,263</td>
</tr>
<tr>
<td>Emcor</td>
<td>1,826</td>
</tr>
</tbody>
</table>
The first floor of the ICC is primarily dedicated to conferencing functions of the Marriott hotel, including two large ballrooms (one of which has been recently transformed from a tiered auditorium), a banquet room, and several conference room/pre-function spaces. There is also a large food service and informal meeting/lounge component to support the event spaces. This includes a large commercial kitchen, food service offices, a gastro-pub restaurant and lounge areas. UMUC’s permanent art collection is also exhibited on the first floor of the ICC in a newer addition to the building. Major space allocations include:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Space Allocation (nasf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriott</td>
<td>54,514</td>
</tr>
<tr>
<td>UMUC Art Holdings</td>
<td>3,468</td>
</tr>
<tr>
<td>Security</td>
<td>784</td>
</tr>
</tbody>
</table>

Hotel rooms comprise the vast majority of the upper floors of the ICC, with over 110 room keys. The second floor of the eastside wing is wholly dedicated to conference rooms (13 total), while the third floor of the eastside wing contains UMUC administrative and executive offices, including Communications, Legal Affairs, and the offices of the President, Provost, Chief Business Officer, and Chief Financial Officer.

<table>
<thead>
<tr>
<th>Floor Level</th>
<th>Facility</th>
<th>Space Allocation (nasf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>Marriott</td>
<td>20,454</td>
</tr>
<tr>
<td>3rd</td>
<td>Marriott</td>
<td>9,985</td>
</tr>
<tr>
<td></td>
<td>Office of the President</td>
<td>3,603</td>
</tr>
<tr>
<td></td>
<td>Legal Affairs</td>
<td>2,752</td>
</tr>
<tr>
<td></td>
<td>Office of the CBO and the CFO</td>
<td>2,102</td>
</tr>
<tr>
<td></td>
<td>Shared Resources</td>
<td>1,667</td>
</tr>
<tr>
<td></td>
<td>Office of the Provost</td>
<td>1,535</td>
</tr>
<tr>
<td></td>
<td>Communications</td>
<td>1,218</td>
</tr>
<tr>
<td>4th</td>
<td>Marriott</td>
<td>5,200</td>
</tr>
<tr>
<td>5th</td>
<td>Marriott</td>
<td>5,200</td>
</tr>
</tbody>
</table>
EXISTING FACILITY USE - BUILDING DETAILS

ADELPHI CAMPUS

Graphic B.15
Inn & Conference Center
Art Gallery

Graphic B.16
Inn & Conference Center
Renovated Hotel Room
EXISTING FACILITY USE - BUILDING DETAILS
ADELPHI CAMPUS

Graphic B.17
Inn & Conference Center
Distribution by Department

- Academic Affairs
- Buildings & Grounds
- Finance & Administration
- APT
- Library
- Other - Non-UMUC
- Shared Services
- Student Affairs
- Vendor Services - Facilities
- Vendor Services - Food
- Vendor Services - Hotel
EXISTING FACILITY USE - BUILDING DETAILS
ADELPHI CAMPUS
EXISTING FACILITY USE - BUILDING DETAILS
ADELPHI CAMPUS

Graphic B.21
UMUC Inn & Conference Center
Floor Plans by Department

Academic Affairs
Buildings & Grounds
Finance & Administration
APT
Library
Other - Non-UMUC
Shared Services
Student Affairs
Vendor Services - Facilities
Vendor Services - Food
Vendor Services - Hotel

ICC LEVEL 5

Bridge to Admin Bldg

Provost Suite

President Suite

ICC LEVEL 4

ICC LEVEL 3
EXISTING FACILITY USE - BUILDING DETAILS

ADELPHI CAMPUS

Graphic B.22
UMUC Inn & Conference Center Floor Plans by Function
- 100s - Classrooms
- 200s - ClassLab
- 300s - Office
- 400s - Library
- 500s - Special Use
- 600s - Activity Space
- 700s - Service
- 900s - Hotel/Lodging
- Unknown
- Others

ICC LEVEL 5

ICC LEVEL 4

ICC LEVEL 3
The hotel building, and almost all space within it, is managed in concert with the ICC via a vendor service contract by the Marriott Hotel Corporation. This building is not a significant focus of the FMP study, though it does have a modest complement of conference rooms and event space on its ground floor. It is an environmentally sustainable building, with the distinction of being the first LEED-certified hotel and conference center in the United States.

Adelphi Campus – Garage

The parking garage has five levels and provides parking for visitors on the ground level and employees and overflow visitor parking on the upper levels. Until recently, UMUC charged for parking, but determined that it cost more to maintain the vendor contract to collect such fees than the revenue produced.
University Center

University Center has three levels and serves as a flexible work and surge space environment.

<table>
<thead>
<tr>
<th>1st Floor major space allocations</th>
<th>2nd Floor major space allocations</th>
<th>3rd Floor major space allocations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surge/Flex 5,601nasf</td>
<td>APT 6,165nasf</td>
<td>APT 6,626nasf</td>
</tr>
<tr>
<td>APT 2,559nasf</td>
<td>Center for Intellectual Property 3,269nasf</td>
<td>Enterprise Risk &amp; Compliance 2,274nasf</td>
</tr>
<tr>
<td>Shared Resources 630nasf</td>
<td>Commencement 1,349nasf</td>
<td>Payroll 1,403nasf</td>
</tr>
</tbody>
</table>
B EXISTING FACILITY USE - BUILDING DETAILS
UNIVERSITY CENTER

Graphic B.26
University Center
Distribution by Department

- Academic Affairs
- Buildings & Grounds
- Finance & Administration
- APT
- Library
- Other - Non-UMUC
- Shared Services
- Student Affairs
- Vendor Services - Facilities
- Vendor Services - Food
- Vendor Services - Hotel
EXISTING FACILITY USE - BUILDING DETAILS
UNIVERSITY CENTER

Graphic B.28
University Center
Floor Plans by Department

- Academic Affairs
- Buildings & Grounds
- Finance & Administration
- APT
- Library
- Other - Non-UMUC
- Shared Services
- Student Affairs
- Vendor Services - Facilities
- Vendor Services - Food
- Vendor Services - Hotel

UC LEVEL 3

UC LEVEL 2

UC LEVEL 1

Main Entry/Lobby
UMUC provides the vast majority of its student services virtually through its extensive online support system. Online support, however, can still require physical facilities for functions as varied as call service centers and administration and development for the online programs. Though not technically a campus, Largo is comprised of two buildings, the Academic Center at Largo (also known as Largo 1) and Largo 2. The Academic Center is a full-service facility and contains administrative offices, student services, and amenities such as classrooms, offices for student advising/counseling, and a cafeteria for students, staff, and visitors. Largo 2 is a student services facility that houses Student Accounts, Financial Aid, and Call Center Operations, which provide telephone support to UMUC students.

**The Academic Center at Largo**

The Academic Center is a massive three-story building that serves a multitude of functions, including Student Affairs. Most notably, this building houses UMUC’s administrative “Collegiate” faculty offices.
The first floor of the building contains the largest amount of public space, including a full cafeteria and supporting kitchen. Directly off the main entrance is a suite of small offices that are used for student advising and counseling (by appointment and walk-in). Other amenities on this floor include classrooms, computer labs, a student lounge, an auditorium (a flat-floor multipurpose room), and a fitness center. UMUC’s Information & Library Services offices also are located on this floor, where students have the option of talking in person with a Library staff member or using computers at study carrels to access UMUC’s online library database. Career Services offices and the Testing Center are also located on this floor.

In addition to Student Affairs, a significant amount of office space on the first floor is dedicated to Collegiate faculty for UMUC’s Cyber Security program. Facilities Management and Career Services offices also are located on the first floor of the Academic Center. Major space allocations include:

<table>
<thead>
<tr>
<th>Category</th>
<th>Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Service (Aramark)</td>
<td>8,952 nasf</td>
</tr>
<tr>
<td>Information &amp; Library Services</td>
<td>4,961 nasf</td>
</tr>
<tr>
<td>Stud. Affairs, Registrar</td>
<td>4,025 nasf</td>
</tr>
<tr>
<td>Acad. Affairs, Computing Srv.</td>
<td>3,537 nasf</td>
</tr>
<tr>
<td>Graduate School (Cyber Security)</td>
<td>3,334 nasf</td>
</tr>
<tr>
<td>Facilities Management</td>
<td>3,277 nasf</td>
</tr>
<tr>
<td>Student Activities</td>
<td>2,455 nasf</td>
</tr>
<tr>
<td>Acad. Affairs, Testing Center</td>
<td>1,683 nasf</td>
</tr>
<tr>
<td>Fitness Center</td>
<td>1,537 nasf</td>
</tr>
<tr>
<td>Office of President</td>
<td>783 nasf</td>
</tr>
<tr>
<td>Shared Resources</td>
<td>630 nasf</td>
</tr>
<tr>
<td>Stud. Affairs, Career Services</td>
<td>486 nasf</td>
</tr>
</tbody>
</table>

The second floor of the Academic Center is overwhelmingly comprised of offices and cubicles for Collegiate staff and faculty. The floor is split primarily between office space for the School of Undergraduate Studies and Student Affairs. The third largest space allocation on the second floor is for Military Operations offices. In addition, a small percentage of the second floor is dedicated to Exams and Testing, Textbook Operations, OISS Administration, the Center for Teaching & Learning, Human Resources, and shared conference rooms. A small number of rooms on this floor are currently vacant.
Major space allocations include:

<table>
<thead>
<tr>
<th>Space Allocation</th>
<th>Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Affairs</td>
<td>20,380nasf</td>
</tr>
<tr>
<td>Undergraduate School</td>
<td>16,986nasf</td>
</tr>
<tr>
<td>Military Operations</td>
<td>3,228nasf</td>
</tr>
<tr>
<td>Shared Resources</td>
<td>3,027nasf</td>
</tr>
<tr>
<td>Textbook Operations</td>
<td>2,440nasf</td>
</tr>
<tr>
<td>Acad. Affairs, Exams &amp; Testing</td>
<td>1,750nasf</td>
</tr>
<tr>
<td>Human Resources</td>
<td>1,285nasf</td>
</tr>
<tr>
<td>Center for Teaching &amp; Learning</td>
<td>573nasf</td>
</tr>
<tr>
<td>Stud. Affairs, Shared Services</td>
<td>533nasf</td>
</tr>
</tbody>
</table>

Like the second floor, the third floor of the Academic Center contains primarily offices and cubicles for Collegiate faculty and staff. The floor is mainly divided between the Graduate School, Enrollment Management, and OISS Administration. This floor also contains Partnerships, Marketing & Enrollment Management, offices for the Center for Support & Instruction and the Center for Teaching & Learning, and shared conference rooms. Major space allocations include:

<table>
<thead>
<tr>
<th>Space Allocation</th>
<th>Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment Management</td>
<td>20,181nasf</td>
</tr>
<tr>
<td>Graduate School</td>
<td>18,067nasf</td>
</tr>
<tr>
<td>OISS Administration</td>
<td>7,285nasf</td>
</tr>
<tr>
<td>Shared Resources</td>
<td>3,856nasf</td>
</tr>
<tr>
<td>Partnerships, Marketing &amp;</td>
<td>1,354nasf</td>
</tr>
<tr>
<td>Enrollment Management</td>
<td></td>
</tr>
<tr>
<td>Center for Support &amp; Instruction</td>
<td>1,339nasf</td>
</tr>
</tbody>
</table>
EXISTING FACILITY USE - BUILDING DETAILS
LARGO CAMPUS

Graphic B.39
Academic Center at Largo
Floor Plans by Function
- 100s - Classrooms
- 200s - ClassLab
- 300s - Office
- 400s - Library
- 500s - Special Use
- 600s - Activity Space
- 700s - Service
- 900s - Hotel/Lodging
- Unknown
- Others

Level 3

Level 2

Level 1
Largo 2

Largo 2 houses Student Accounts, Financial Aid, and Call Center Operations. This one-story building has minimal interior partitions; it is almost exclusively comprised of expansive open spaces filled with open workstations. Largo 2 does contain a small number of enclosed/private offices and shared spaces such as pantries and conference rooms. Major space allocations include:

<table>
<thead>
<tr>
<th>Space Allocation</th>
<th>Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Affairs - Shared Services</td>
<td>18,820nasf</td>
</tr>
<tr>
<td>General Storage</td>
<td>14,826nasf</td>
</tr>
<tr>
<td>Student Affairs - Financial Aid</td>
<td>8,437nasf</td>
</tr>
</tbody>
</table>
SATELLITE FACILITIES

Dorsey

UMUC utilizes the second floor of the office building at Dorsey Station for flex/expansion and surge space. Offices, conference rooms, and storage rooms exist on this floor. UMUC’s Analytics, Planning & Technology [APT] department regularly utilizes workspace and storage space in this building. Student services are available at this location.

Shady Grove

UMUC utilizes instructional space at Shady Grove; this location is associated with the Universities at Shady Grove [USG]. Student services are available at this location.

Quantico

UMUC offers classes in undergraduate, graduate, and general education programs at its Quantico location. It also provides additional office, remote working and meeting space. Student services are available at this location.

Waldorf Center

UMUC’s Waldorf Center for Higher Education offers hybrid on-site and online classes. Student services are available at this location.

University of Maryland, College Park [UMCP]

UMUC does not own or have a long-term space lease at College Park. Most classrooms are used in the evenings and are not a sampling of College Park’s best learning environments. Some classrooms are out of date with inadequate furnishing and technology, but negotiations are underway to acquire updated and technology-enabled classrooms.
EXISTING FACILITY USE - BUILDING DETAILS

SATELLITE FACILITIES

Graphic B.46
Dorsey
Distribution by Department
- Academic Affairs
- Buildings & Grounds
- APT
- Student Affairs

83%
16%

Finance & Admin
Shared Services
APT

Graphic B.47
Dorsey
Distribution by Function
- 100s - Classrooms
- 200s - ClassLab
- 300s - Office
- 400s - Library
- 500s - Special Use
- 600s - Activity Space

60%
28%
6%

Activity Space
ClassLab
Unknown
Office
Classrooms
ANCILLARY SPACE NEEDS
The following section comprises commentary on the Facility Master Plan’s [FMP] adjustments to the University System of Maryland’s [USM] space planning guidelines relative to UMUC’s mission and space needs. The commentary is organized according to the Post-Secondary Education Facilities Inventory and Classification Manual [FICM]. This manual is created by the National Center for Educational Statistics. Because UMUC’s space types are not as diverse as a traditional institution of higher education, commentary is only provided for applicable categories. Definitions:

- FTNE – Full Time Nighttime Equivalent
- FTDE – Full Time Daytime Equivalent
- NASF – Net Assignable Square Feet

Class Lab (FICM Category 200)

Similar to the UMUC classroom guideline, the adoption of the guideline factor for class labs involves station size, station utilization rate [SUR], and room utilization rate [RUR]. For UMUC the class lab guideline factor used in the space planning guidelines is 7.81.

<table>
<thead>
<tr>
<th>Year</th>
<th>NASF</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>4,326</td>
</tr>
<tr>
<td>2022</td>
<td>4,326</td>
</tr>
</tbody>
</table>

2012 Current Total: 4,326 NASF
2022 Allowance: 4,326 NASF (0% Surplus/Deficiency from Projected Total)

<table>
<thead>
<tr>
<th>Category I</th>
<th>Education/Humanities/ Social Sciences/Business</th>
<th>Standard Station Size</th>
<th>Class Station Size</th>
<th>Distribution FTDE</th>
<th>FTNE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45 nasf/seat</td>
<td>20%</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category II</th>
<th>Natural/ Applied Science/Tech &amp; Occ/Fine Arts</th>
<th>Standard Station Size</th>
<th>Class Station Size</th>
<th>Distribution FTDE</th>
<th>FTNE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80 nasf/seat</td>
<td>60%</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category III</th>
<th>Engineering/Dramatic Arts/Health Sci/ Human Ecology</th>
<th>Standard Station Size</th>
<th>Class Station Size</th>
<th>Distribution FTDE</th>
<th>FTNE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>120 nasf/seat</td>
<td>20%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Avg Station Size 81 NASF 62.5 NASF

<table>
<thead>
<tr>
<th>Station Size</th>
<th>FTDE 81 NASF</th>
<th>UMUC FTNE 62.5 NASF</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>RUR Hrs Avail</td>
<td>45 hrs</td>
<td>16 hrs</td>
</tr>
<tr>
<td>Use Rate</td>
<td>47%</td>
<td>80%</td>
</tr>
<tr>
<td>Hrs Sched</td>
<td>21 hrs</td>
<td>12 hrs</td>
</tr>
<tr>
<td>Size Differential</td>
<td>&lt;3,000 1.20</td>
<td>1.20</td>
</tr>
<tr>
<td>Factor</td>
<td>5.79 7.81</td>
<td></td>
</tr>
</tbody>
</table>
ANCILLARY SPACE NEEDS

Research (FICM Category 250)

UMUC’s mission does not lend itself to research beyond that which occurs within office environments, and this practice is not expected to change. For this FMP, the amount of UMUC-allocated research space is zero and represents the allowed amount of space.

2012 Current Total: 0 NASF
2022 Allowance: 0 NASF (0% Surplus/Deficiency from Projected Total)

Office (FICM Category 300)

For the purposes of UMUC’s and the USM planning guidelines, the USM allocates 166 NASF per FTE faculty and staff for office space. Because UMUC values more open space to encourage informal interchange and greater office flexibility, an additional 74 NASF is provided in the UMUC office guideline to accommodate this valued internal circulation for a total guideline of 240 NASF per FTE faculty and staff.

2012 Current Total: 311,463 NASF
2022 Allowance: 364,842 NASF (15% Deficiency from Projected Total)

Library/Study Space (FICM Category 400)

UMUC’s library reflects an electronic approach to supporting student and faculty needs for information access. As such, it differs significantly from traditional approaches in higher education. The Maryland space planning guidelines substantially overestimate space needs for UMUC by including dedicated study and processing/service space deficiencies. For planning purposes, the USM guideline has been modified so that no space is provided for study space.

2012 Current Total: 909 NASF
2022 Allowance: 909 NASF (0% Surplus/Deficiency from Projected Total)

Data Processing/Servicing (FICM Category 440)

The State guideline for data processing is based on the FTDE enrollments of an institution. For UMUC, with its significant online delivery of instruction that takes place 24/7/365, this guideline factor is not a realistic reflection of the amount of space required to support continued and uninterrupted functioning. The guideline developed for UMUC provides the same 2,500 NASF core of data processing space, but bases the core on FTE students rather than FTDE. This factor better represents the type and level of demand that must be supported at UMUC. Further, the University believes that the 0.75 NASF per FTE student above 4,000 overestimates its real need for this type of space. UMUC expects a greater reliance on the cloud, as well as other technological advances in data storage and processing, to reduce
its needs for data processing facilities. The University believes that it can achieve economies of scale that permits 0.15 NASF per FTE student above 4,000. This guideline was used in assessing UMUC’s need for this type of space.

2012 Current Total: 0 NASF
2022 Allowance: 0 NASF (0% Surplus/Deficiency from Projected Total)

**Athletic/Physical Education (FICM Category 520)**

UMUC does not offer a curriculum in physical education and it does not have recreational, intramural, or intercollegiate athletic teams, but it values the health and wellness of its students, faculty, and staff. The USM planning guidelines, however, support a core set of physical education facilities that are beyond UMUC’s needs. The USM guideline has been modified so that no space is provided for athletic/physical education space. Consistent with the FICM, however, fitness space at UMUC has been classified as recreation space. Under Maryland space planning guidelines, recreation space is considered ad hoc space. For the FMP, UMUC’s recreation space need is the amount of existing fitness space.

2012 Current Total: 0 NASF
2022 Allowance: ad hoc

**Media Production (FICM Category 530)**

The nature of UMUC’s programs does not lend itself to expanded media production facilities based on the number of FTDE students, as provided by the Maryland space planning guidelines. For this FMP, the amount of UMUC-allocated media production space represents the allowed amount of space.

2012 Current Total: 2,359 NASF
2022 Allowance: ad hoc

**Assembly (FICM Category 610)**

The USM space planning guideline provides a base of 12,000 NASF space and additional 2 NASF per FTDE student. For UMUC, the number of FTNE students was used and assembly space associated with the University’s conference center was included as ad hoc space.

2012 Current Total: 3,356 NASF
2022 Allowance: 4,147 NASF (19% Deficiency from Projected Total)
ancillary space needs

Exhibit (FICM Category 620)

The USM space planning guideline provides 1 NASF per FTDE student. For UMUC, the number of FTE students was used as a planning factor. In addition, the art department’s exhibit facilities were considered ad hoc.

- 2012 Current Total: 3,468 NASF
- 2022 Allowance: 3,841 NASF (10% Deficiency from Projected Total)

Lounge (FICM Category 650)

The USM planning guideline for lounge space is based on the overall square footage of space in all institutional properties, excluding the space of lounges themselves, and provides an allowance that reflects 3% of all this space. This guideline overestimates UMUC’s needs given the student profile and its instructional delivery approach. UMUC has determined that 1% of its total space, excluding lounge space, provides a better assessment of its lounge space needs.

- 2012 Current Total: 3,933 NASF
- 2022 Allowance: 3,525 NASF (12% Surplus from Projected Total)

Central Storage (FICM Category 720/745)

The USM planning guideline for lounge space is based on the overall square footage of space in all institutional properties, excluding the space of lounges themselves, and provides an allowance that reflects 3% of all this space. This guideline overestimates UMUC’s needs given the student profile and its instructional delivery approach. UMUC has determined that 1% of its total space, excluding lounge space, provides a better assessment of its lounge space needs.

- 2012 Current Total: 9,756 NASF
- 2022 Allowance: 9,696 NASF (0% Surplus/Deficiency from Projected Total)

Central Services (FICM Category 750)

The USM space planning guidelines provides a core of 4,000 NASF for the central services space category. This was not applied to UMUC as services are distributed.

- 2012 Current Total: 0 NASF
- 2022 Allowance: 0 NASF (0% Surplus/Deficiency from Projected Total)
ANCILLARY SPACE NEEDS

Hazardous Materials (FICM Category 760)

The USM space planning guideline for hazardous materials is based on research space allocations and shop space allocations. Since UMUC does not conduct research that involves hazardous materials for either storage or disposal, the guidelines overestimate its needs for this category of space. The space planning guideline was modified to include only shop space.

2012 Current Total: 0 NASF
2022 Allowance: 195 NASF (+100% Deficiency from Projected Total)

Healthcare (FICM Category 800)

Because of the nature of UMUC’s academic programs and student profile, health facilities are not required. As a result, the USM space planning guidelines, which provide a core of 1,000 NASF and additional space based on the number of FTDE students, overestimates space requirements for UMUC. For this FMP, UMUC is not expected to provide any healthcare space.

2012 Current Total: 0 NASF
2022 Allowance: 0 NASF (0% Surplus/Deficiency from Projected Total)
EMISSIONS REDUCTIONS
The following table illustrates the annual vehicle miles traveled [VMT], fuel consumption, and carbon emissions from work trips of full-time collegiate faculty and staff. The table also includes the potential savings of switching to a four-day work week for three different distance limits determined by employment density, the CAP 2050 plan parameters, and the national trend of expanding commutersheds (see Note D.1). As shown, the reduction in CO2 emissions ranges from 861 metric tons for employees living within a 50 mile drive zone to 988 metric tons for employees in a commutershed expanded to 100 miles (this expands upon information from Section 6, Planning Drivers).

<table>
<thead>
<tr>
<th>Distance Limits</th>
<th>Current Annual Full-time Employee Commutation Estimates</th>
<th>Potential Savings from Switch to Four-day Week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vehicle Miles Traveled</td>
<td>Gallons of Gasoline Consumed (21.5 mpg)</td>
</tr>
<tr>
<td>100 Miles</td>
<td>11,912,905</td>
<td>554,089</td>
</tr>
<tr>
<td>60 Miles</td>
<td>10,812,824</td>
<td>502,922</td>
</tr>
<tr>
<td>50 Miles</td>
<td>10,373,173</td>
<td>482,473</td>
</tr>
</tbody>
</table>

Methodology

The methodology alluded to in the UMUC CAP 2050 Plan used distances from zip code of origin to zip code 20742, the centroid of which is occupied by the UMUC campus at Adelphi. Since the publication of that report the Largo facility has come online and it is as common a place of work as Adelphi. Because employment records do not link to a specific work location, in this round of estimation vehicle miles traveled were calculated from the zip code of residence to Adelphi (centroid of zip code 20742) and Largo (1616 McCormick Drive Largo, MD 20774) using Mapquest.com’s best route driving directions. The results of both calculations were averaged to get a likely trip length. VMT distances from the new calculations were compared to those in the UMUC CAP 2050 and were found to be similar, with any changes explained by the greater specificity of destination and improvements to the route finder and underlying maps.
The underlying assumptions are as follows:

- Staff/Faculty = Master List Less Adjuncts, Students and Teaching Assistants
- All staff/faculty are getting to work via single occupancy vehicles
- Origin is centroid of zip code of residence
- Destination 1 is Adelphi Address (Centroid of 20742)
- Destination 2 is Largo Address (1616 McCormick Drive Largo, MD 20774)
- Driving Distance was determined for each Origin/Destination pair
  - Mapquest selected the Routes
  - Driving distance is in Miles
- Employee Round Trip [ERT] is average of vehicle miles traveled from Origin to Destinations 1 and 2
- Annual Vehicle Miles Traveled is ERT x number of employees per zip code x workdays per week x work weeks per year
  - Workdays per week = 5
  - Workweeks per year = 42
- The average fuel economy is 21.5 MPG, as per the 2010 national average
- The emissions equation is:

\[
0.125 \text{mmbtu} \times 71.35 \text{kg CO}_2 \times 1 \text{ metric ton} = 8.92 \times 10^{-3} \text{ metric tons CO}_2
\]

**What Does This Accomplish?**

According to CAP 2050, the University GHG emissions equaled 23,017 metric tons of CO2 in 2008, with the goal of being 15% below 2008 levels by 2015 — a reduction of 3,453 metric tons of CO2. Using the 60 mile driving distance limit, Tier 1’s remote work strategy brings UMUC more than one quarter (26%) of the way there.

In terms of consumption, 988 metric tons is the annual carbon equivalent of:

- Consuming 2,321 barrels of oil
- Burning 4.3 railcars of coal
- The electricity use of 137 homes
- The annual total energy use of 50 homes

In conservation terms, it’s the annual equivalent of:

- The carbon sequestered by 818 acres of US forests
- Recycling 374 tons of waste instead of sending it to the landfill
Potential Improvements to the Estimates

The estimates provided could be greatly improved if data on modal split and origin/destination data were available. Vehicle type (SUV, hybrid) and model year information would also improve estimates.

Notes

D.1 The majority of employees live within a 50-mile drive. The 2010 CAP plan indicated a 60 mile drive zone for Adelphi campus employees. However, given the trend of increasing commutersheds, a 100-mile distance category has been added.
ACKNOWLEDGMENTS
University of Maryland University College

Leadership

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- University System of Maryland, Office of Capital Planning Facility Master Plan Guidelines, Revised August 5, 2013

Section 2
- American Community Survey Public Use Microdata Sample www.ipums.org
- UMUC Office of Institutional Planning, Research and Analysis, 2012 Fact Book

Section 4
- The Economist, Catching on at Last, June 2013
- UMUC Website, What’s in a Name?, Accessed Online 9/6/2013,

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- Maryland Higher Education Commission, Space Guidelines for Four Year Public Institutions, Revised Allowances Summary September 9, 199
- UMUC Chief Financial Officer, E-mail on 31 Oct 2013, 7:55 am, “Fwd: FMP Data” (Re: Student, Faculty and Staff Projections)
- UMUC Office of Institutional Planning, Research and Analysis, E-mail on 19 Aug 2013, 1:19 pm, “Re: SGAP Data Request” (Re: UMUC is Exempt)

Appendix A
- American Community Survey Public Use Microdata Sample www.ipums.org

Appendix C
- Maryland Higher Education Commission, Space Guidelines for Four Year Public Institutions, Revised Allowances Summary September 9, 199

Appendix D
- UMUC Employee Zip Code by Department data
- University of Maryland University College 2010 Climate Action Plan: 2010-2050 [CAP 2050]