

A First Class
Campus
For a
World Class
University:
A University
in the City



FACILITIES MASTER PLAN 2017 - 2030 UPDATE

Approved by the UMD Board of Regents, February 9, 2018

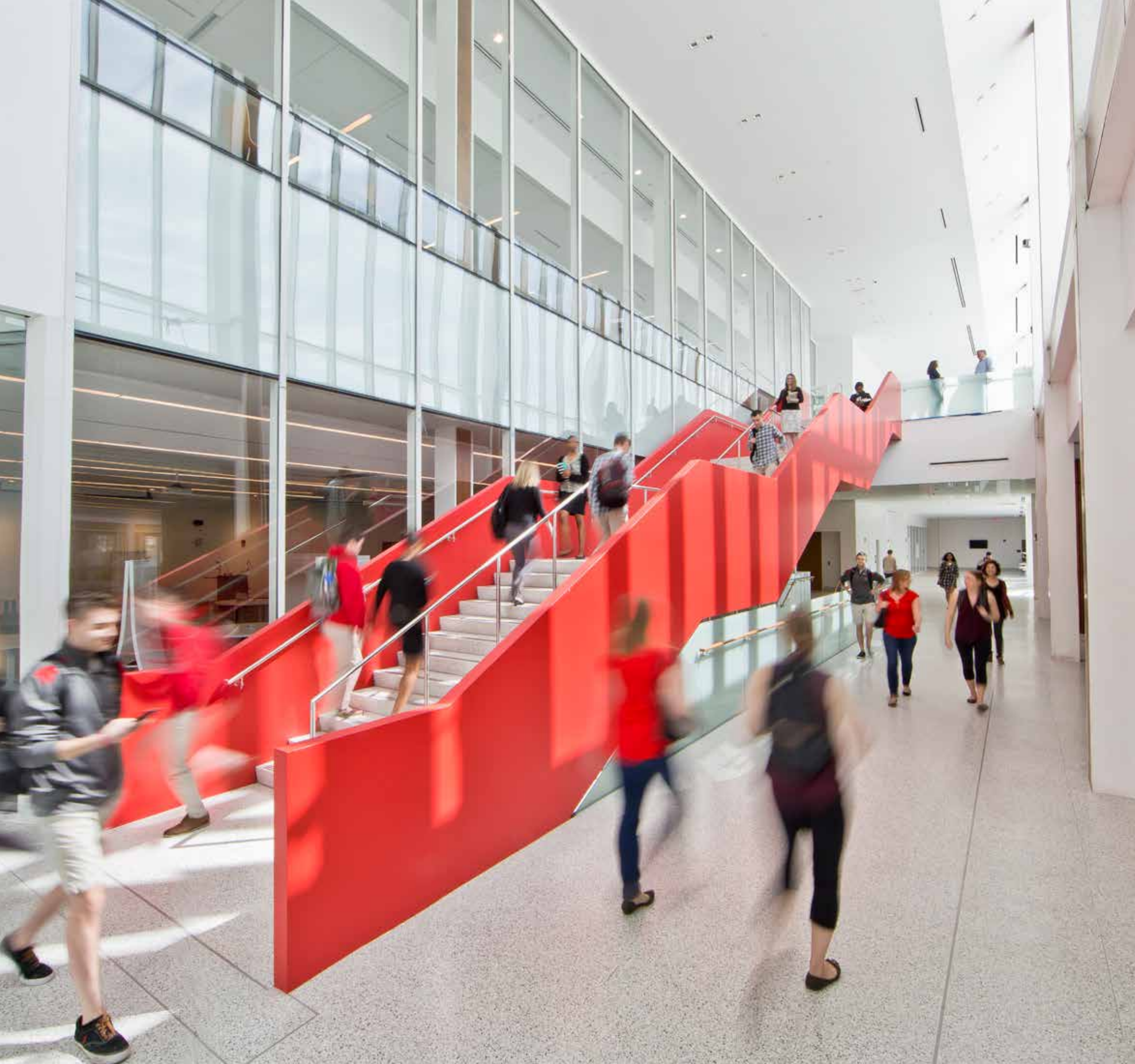


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I. Statement of Mission

The mission of the University of Maryland, College Park is to provide excellent teaching, research, and service. The university educates students and advances knowledge in areas of importance to the state, the nation, and the world. The university is committed to being a preeminent national center for research and for graduate education, and the institution of choice for Maryland's undergraduates of exceptional ability and promise.

The University of Maryland (UMD) is a public research university, the flagship campus of the University System of Maryland (USM), and the original 1862 land-grant institution in the state. It is one of 62 members of the Association of American Universities, comprised of the leading research universities in the United States and Canada. The university creates and applies knowledge, nourishing a climate of intellectual growth and providing outstanding instruction in a broad range of academic disciplines and interdisciplinary fields. As a land-grant institution, it shares its research, educational, cultural, and technological strengths

with Marylanders and other constituencies. Its collaborations with state, federal, private and non-profit partners promote economic development and improve quality of life. UMD offers faculty and students a vibrant ecosystem that nurtures and encourages innovation and entrepreneurship in a variety of ways. As a public flagship campus, it is committed to providing high quality educational opportunities that are affordable by all students regardless of family income.

The excellence of the university's faculty, staff, and students is vital to these activities. The university counts the diversity of its community as among its greatest strengths and integral to its mission of excellence, and it is committed to inclusiveness in both educational and work environments. Providing equal educational opportunity, hiring and retaining a diverse faculty and staff of exceptional achievement, recruiting and graduating talented students from traditionally underrepresented groups, and providing a supportive climate for their health, well-being, and professional growth are institutional priorities.

II. Program Initiatives

In 2008, the University of Maryland developed a comprehensive and bold 10-year strategic plan, "Transforming Maryland: Higher Expectations." In the years since, UMD has achieved a number of its goals, experiencing a remarkable rise in accomplishment and reputation. New opportunities now promise even greater attainments. "Equal to the Best: 2016 Strategic Plan Update for the University of Maryland" capitalizes on this momentum and builds on the 10-year plan (2008-2018) that was adopted by the University Senate in May 2008.

Many elements of that plan remain relevant. The mission of the university as stated in the strategic plan has not changed. More than ever, as the flagship of

the University System of Maryland, UMD directly and indirectly contributes to the health of the entire fleet—a role that is fully embraced by this campus.

The core values of the university, as stated in the 2008 plan, still underlie all university activities: excellence institution-wide and in the work of all its members; diversity and inclusiveness of students, faculty and staff; a commitment to civility and collegiality in order to make this a broad, welcoming and diverse community; the highest ethical standards in all university actions; and a commitment to openness and accountability through shared governance.

The action principles identified in 2008 still apply:

- **Build an inclusive community**
- **Embrace the power of technology**
- **Act with entrepreneurial spirit**
- **Partner with others locally and globally**
- **Foster transformational change**
- **Enhance contributions to society**
- **Elevate our rank among world-class universities**
- **Attract the best faculty, staff and students**
- **Become an international center of excellence**
- **Create a vibrant surrounding community**
- **Sustain and strengthen the state's competitive capacity**
- **Serve Maryland as its flagship institution with worldwide reach**

The strengths and opportunities identified in 2008—the university’s location, flagship status, high quality and breadth of academic programs, diversity, increasing excellence and a culture of innovation, collaboration and partnership—are even more relevant today than nine years ago. UMD’s 2012 strategic partnership with the University of Maryland, Baltimore (UMB) and the 2013 affiliation with the Big Ten Academic Alliance (BTAA), have created greatly expanded opportunities for collaborations in education, research, innovation and administration. Membership in the BTAA allows us to share best practices, engage in joint initiatives, and collaborate to achieve efficiencies in a wide range of activities such as recruitment and professional development.

In designating UMD as Maryland’s flagship institution, the state charged that it be “equal to the best.” By any measure, the university is now one of the nation’s top research universities. We will continue on our path to be considered “equal to the best” among all universities in the world.

The university will pursue the following goals:

A. Education

1. Undergraduate Education

The University of Maryland provides a world-class education that emphasizes academic excellence, student engagement and innovative teaching. Across 12 colleges, it provides more than 90 undergraduate majors and numerous minors and certificate offerings, as well as living and learning communities that cover a great variety of disciplines. High-quality academic programs lead UMD graduates to successful careers and productive lives. Enhancing these programs will, in the words of the 2008 plan, make UMD a “magnet for the most promising students of the next generation.”

The university will continue to elevate the quality and accessibility of undergraduate education with programs that are comprehensive and challenging, and that serve students well as a foundation for the

workplace, advanced study, and a productive, fulfilling life. It will also continue efforts to attract larger numbers of academically-talented students and to enroll, retain, and graduate more students from traditionally underrepresented groups. Its goal is to become the school of choice for the highest achieving students graduating from Maryland high schools.

2. Graduate Education

A defining aspect of the university as the state’s flagship is the strength and breadth of doctoral programs and the important role they play in the dual mission of education and scholarship.

The University of Maryland will continue to provide the highest quality graduate and professional education at all levels. We will enroll and educate students who excel in academic achievement and exhibit the promise of outstanding creativity and innovation, and whose diversity will contribute to the vigor, scope, and intellectual excitement of our programs.



Edward St. John Learning and Teaching Center

B. Research and Scholarship

Research and scholarship are core university missions. Extending UMD’s preeminence in these pursuits requires, above all, attracting and retaining the best, most productive faculty. Accomplishments are measured by faculty recognition, research funding, collaborations and partnerships. The impact of the research is evaluated by how it pushes the boundaries of knowledge, experience and technology, and by how it informs academic and public conversations on societal issues and cultural heritage. Evaluations are made with respect to peer institutions.

The university strives to be recognized as a world center for the creation and dissemination of knowledge across all disciplines, and for its application for the good of humanity, by addressing major societal issues and expanding the frontiers of knowledge that will allow us to take our place among the very finest research universities in the nation and the world.

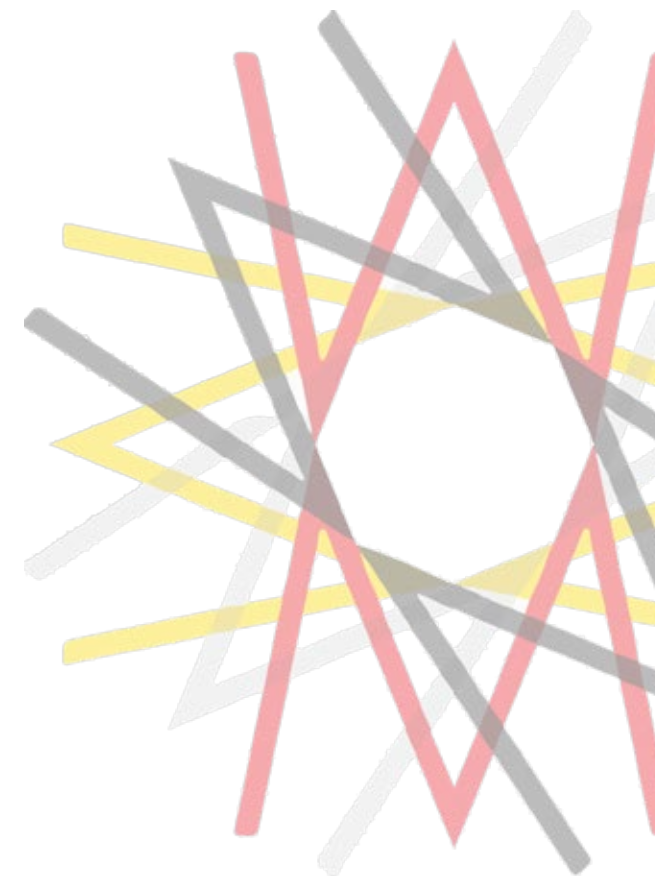


A. James Clark Hall

C. Strategic Partnerships with the University of Maryland, Baltimore (MPower)

The strategic partnership of UMD with the University of Maryland, Baltimore, MPowering the State, was not envisioned in 2008. It represents one of the most transformational changes of recent years. It has greatly expanded UMD’s horizons and opportunities. The collaborative possibilities span the breadth of programs on both campuses.

The university will engage fully in outreach and collaborative partnerships, extending its scholarly reach beyond the campus by promoting economic development and by improving quality of life in the College Park community and in the state. The university will expand the international reach of its programs, creating collaborations world-wide that enhance learning and research opportunities for students and that expand the visibility of the university as a globally engaged institution. Nurturing relationships with the university family of alumni and friends will create opportunities for students, will provide benefits to alumni from access to campus expertise, and will foster increased giving in support of the university’s mission.





Milkboy ArtHouse



Cole Field House

D. Arts and Humanities

The arts and humanities are core components of a quality education, essential to a great university's identity and excellence. The humanities provide the critical tools and analyses that document what it means to be human; the arts provide channels through which we deliver the stories and ideas that express our humanity. UMD has long had a distinctive and productive relationship between these two areas of scholarship through their placement within a single college. This proximity has allowed for collaboration and synergies that have brought distinction to the university. Increasingly, the arts and humanities are being asked to enhance and provide insight into the natural and social sciences. It is at such intersections that paradigms are changed, new knowledge is created, and new opportunities realized.

Strategic investment will continue in the arts and humanities and will enhance UMD's national profile and will attract top faculty, students and interested donors.

E. Athletics

Though formally outside the academic enterprise, athletics play a significant role in the life of the university, collaborating with faculty and encouraging student growth. This collaboration has greatly expanded in ways not envisioned in 2008 as a result of UMD's entrance into the Big Ten Conference and its academic affiliate, the Big Ten Academic Alliance. This change has thrust UMD into productive academic collaborations with key flagship peers and significantly increased our national visibility. We have already seen an increase in recruitment of students, with a record 30,000 applications for freshman admission.

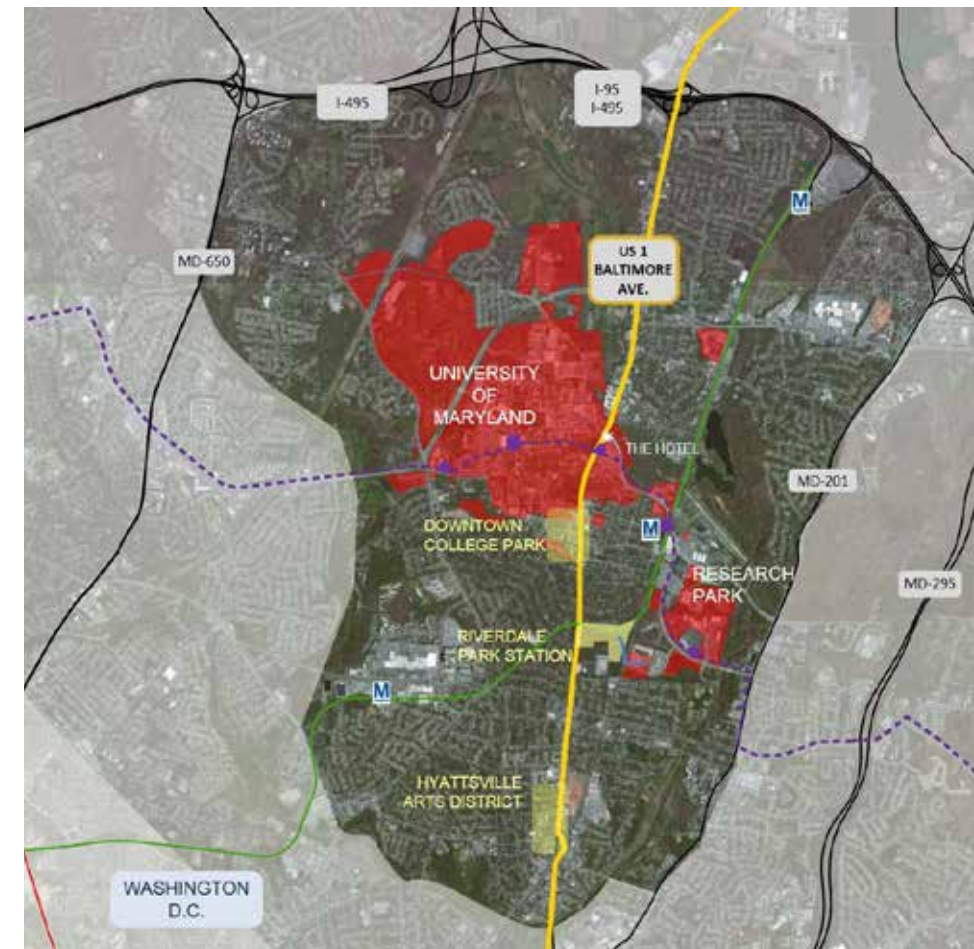
The Big Ten leads all other athletic conferences in the number of alumni (5.7 million) and students (nearly 580,000). The Big Ten Network (BTN) reaches more than 60 million homes across the United States and Canada. In addition to athletic events, the BTN LiveBig network airs segments about its members' students, faculty, staff and alumni who are making an impact with their research, education and community service. This highlights UMD as a world-class academic institution.



F. Greater College Park

A core mission of Maryland's flagship institution is to support economic development in the state. UMD's research and innovation plays a major role in fulfilling this mission, made possible by faculty excellence and a uniquely supportive location.

The university will continue to participate in the cooperative work between the state, Prince George's County, the city and private developers to reshape the surrounding area—called Greater College Park—to develop a major hub for innovation and creativity and to revitalize the city.



The Hotel at University of Maryland



Terrapin Row



Target Express & Landmark



Whole Foods Riverdale Park Station



CVS, Cambria Hotel & Suites



Bozzuto Retail & Residential Complex



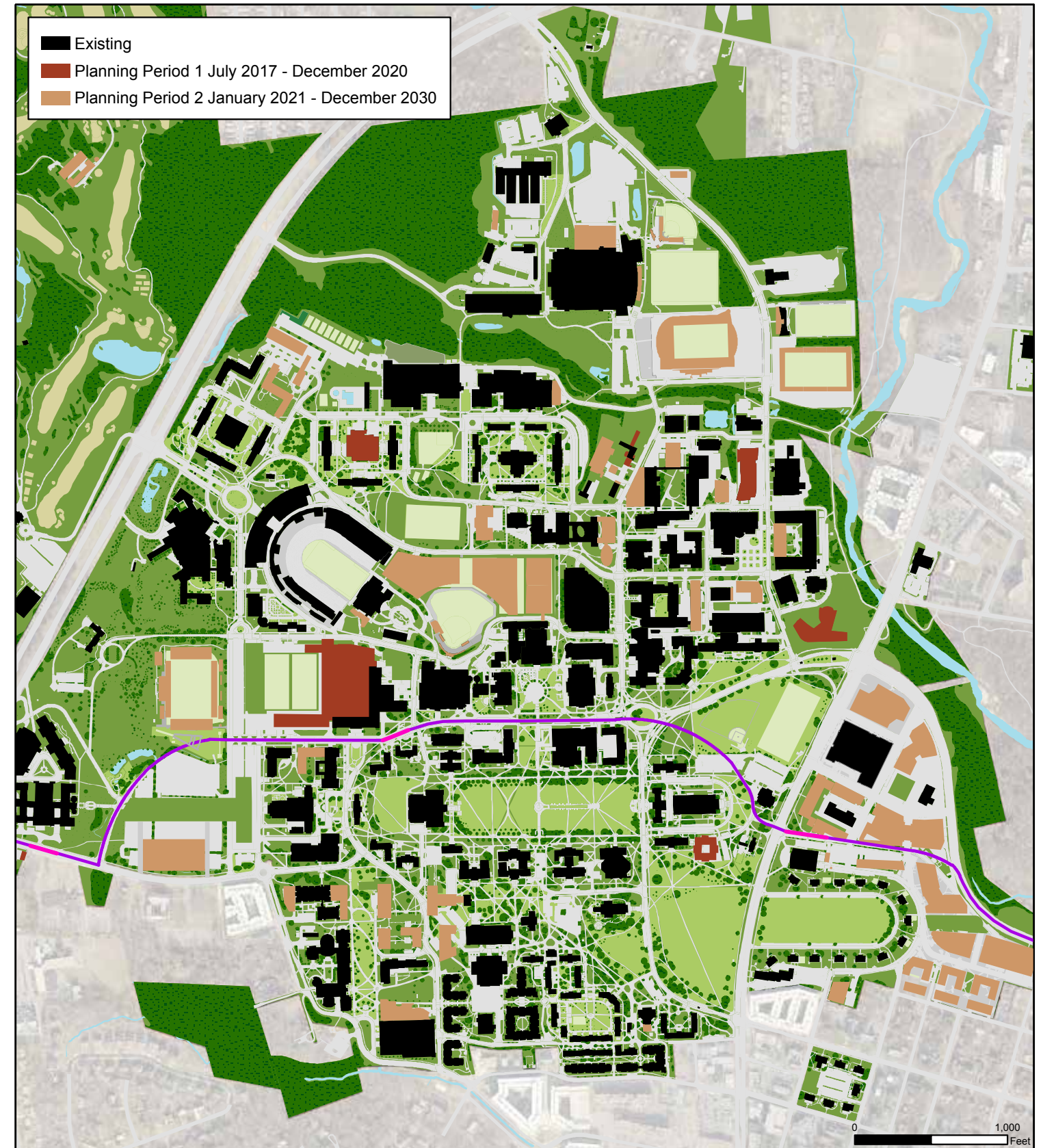
III. Institution Description

A. Location

The University of Maryland is located in the City of College Park within Prince George’s County. The campus is 28 miles southwest of the center of Baltimore, 29 miles west of Annapolis, and 8 miles north of Washington, D.C. The region’s concentration of cultural, scientific, research, political, economic and agricultural activities offers many advantages to the institution’s academic and research programs.

Interstate 495/95, located approximately two miles north of the main entrance to campus, provides direct regional access to the College Park community and the institution via Baltimore Avenue/U.S. Route 1, a highly developed commercial corridor and a heavily traveled vehicular link between Baltimore and Washington. Main campus is bordered by University Boulevard/

MD Route 193, Campus Drive, Mowatt Lane, Knox Road, and Baltimore Avenue. The expanding main campus, the new Discovery District, also includes a parcel of land east of Baltimore Avenue, historically developed as student housing and service functions. The Discovery District, from Baltimore Avenue to Kenilworth Avenue, is the new locus for research and start-up companies, housing and hospitality space and food, arts, entertainment and collaboration space. The University Golf Course is located to the west of University Boulevard.



B. Fall 2016 Inventory

The University of Maryland's main campus consists of approximately 14.1 million gross square feet (GSF) with 254 buildings on 1,340 acres. With the inclusion of off-campus facilities, including leased facilities, the building inventory totals approximately 15.3 million GSF in 442 buildings on 5,210 acres. As shown in Table 1, 51 percent of the main campus' total inventory is state-supported and 42 percent is auxiliary.

TABLE 1 | Fall 2016 Building Overview

	No. of Bldgs	GSF	NASF	Percent of Total GSF
Main Campus				
State Supported		7,740,490	4,700,529	51%
Auxiliary		<u>6,358,321</u>	<u>2,953,311</u>	<u>42%</u>
Subtotal	254	14,098,811	7,653,840	93%
Other Facilities*				
State Supported		936,650	727,271	6%
Auxiliary		6,985	6,985	Less than 1%
Leased		<u>211,898</u>	<u>211,898</u>	<u>1%</u>
Subtotal	188	1,155,533	946,154	7%
Total Inventory	442	15,254,344	8,599,994	100%

* Includes Maryland Fire and Rescue Institute (MFRI), the University of Maryland Extension (UME), Institute for Bioscience and Biotechnology Research (IBBR) and Leased Facilities.

GSF (Gross Square Feet)
NASF (Net Assignable Square Feet)

Source: UMD Department of Facilities Planning



14 million+

Gross Square Feet of Space



250+

Main Campus Buildings



7.7 million

Net Assignable Square Feet (NASF)



361,000+

Classrooms (NASF)



1.2 million

Laboratories (NASF)



414,000+

Study Spaces (NASF)

C. Space Planning Guidelines

The use of state-mandated Space Planning Guidelines is intended to assist the university and state in identifying the overall adequacy of types and amounts of space. The Space Guidelines Application Program (SGAP) report compares existing and proposed inventories to existing and proposed space allowances based on the Guidelines. The report is based on campus-wide data and deals only with quantity, not quality, of space. The magnitude of the existing and projected space deficits is significant. The base year (fall 2016) inventory reflects a total space deficit of approximately 1.8 million net assignable square feet (NASF). All of the major room use categories show deficits.

TABLE 2 | Fall 2016 and Fall 2026 Inventory Analysis

	Fall 2016	Fall 2016	Fall 2026	Fall 2026
ROOM USES	Inventory	Surplus/Deficit	Inventory	Surplus/Deficit
Classrooms	361,841	(113,612)	426,207	(53,538)
Class Laboratories	369,273	(40,680)	417,525	(8,362)
Research Laboratories	828,856	(774,045)	941,418	(836,083)
Office	<u>1,944,202</u>	<u>(183,983)</u>	<u>2,153,460</u>	<u>(192,168)</u>
Subtotal	3,504,172	(1,112,320)	3,939,072	(1,090,151)
Study Spaces	414,123	(397,468)	425,386	(402,513)
Other Room Uses*	<u>3,717,547</u>	<u>(285,443)</u>	<u>5,556,258</u>	<u>(313,096)</u>
TOTAL	7,653,842	(1,795,231)	9,920,716	(1,805,760)

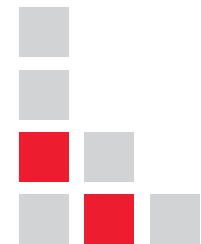
* Includes all Special Use, General Use and Support Space

Source: UMD Department of Facilities Planning

D. Condition of Existing Facilities

The advanced age and deteriorating condition of UMD facilities are major concerns. Insufficient funding for maintenance and facilities renewal has resulted in enormous deferred maintenance needs and an aging, increasingly obsolete physical plant. In addition, the lack of functionally appropriate or suitable space poses a direct threat to the timely fulfillment of the university's mission. The increased technological requirements of instruction and advances in research technologies contribute to a critical growing need for renewal of existing facilities. In some notable cases, UMD has lost eminent faculty to other institutions due to sub-par facilities conditions.

Institutions should spend at least two percent of the replacement value of facilities annually for facilities renewal. In UMD's case, this would be \$90.1M for state-supported facilities (fall 2016 data). Due to historic underfunding of facilities renewal, there is a huge deferred maintenance backlog. In 2015, UMD completed a facilities audit and updated its estimated deferred maintenance backlog to be \$907M. This included \$738M for its state-supported buildings and \$169M for exterior infrastructure such as roads, sidewalks, exterior lighting and underground utilities. One-sixth of the space in UMD's major state-supported buildings was deemed in poor condition, one-half in fair condition, and one-third in good condition. One-third of UMD's state-supported space has not had major renovation in more than 40 years (fall 2016 data).



E. Physical Analysis

The 2011-2030 Facilities Master Plan (FMP, or "Plan") and this 2017 update capture the vision and the strategic plan priorities, and they incorporate the physical planning principles that are intended to guide facilities development and campus placemaking at the University of Maryland.

Environmental preservation and landscape enhancement form one of the underlying grids, or major infrastructures of the Plan. The Plan has addressed increased regulatory requirements related to surface and underground stormwater networks both on campus and at interfaces with the surrounding community. It shows greenway and open space networks linking pedestrian corridors within and between districts. In 2008 the campus was designated as an Arboretum & Botanical Garden (ABG), further revealing and advancing the value of campus natural resources as an instrument of pedagogy, research and community engagement.

Progress has been made to establish a more comprehensive and interconnected multimodal transportation network. This second major infrastructure of the Plan includes recommendations designed to enhance pedestrian movement and to accommodate more efficient vehicular movement to relieve congestion. The Plan identifies possible sites for new facilities that work within the context of the environmental and transportation systems. Collaborative planning and implementation has met increased demand for the use of bicycles and has resulted in establishing on campus bicycle routes with connections to local and regional bikeway networks. The Purple Line light rail will bring a welcome additional alternate mode of transport connecting the university to the broader region.

The campus comprises eight districts on the main campus, plus outlying university-owned properties. The size of each district is defined by an approximately five to seven minute walking radius. Depending on the period of its development, each district has unique physical and cultural characteristics evidenced in its natural features, open spaces, buildings, and their uses—the heritage of campus development. The plans for each district have been envisioned to embrace the most positive characteristics of the campus and to extend them forward into the future, utilizing physical planning principles and goals applied holistically to the rich and varied campus land uses and infrastructural matrix.



John S. and James L. Knight Hall

F. University of Maryland's Changing Face and Heritage

To understand the goals of this Plan, it is useful to have a brief overview of how the campus changed and how some of the key features that have shaped our campus emerged. The University of Maryland campus has a rich history of landscape planning and architectural development. The face of campus has been shaped over its 161-year history by changing demographics and enrollment pressures, the demands of new academic programs and the explosion of research, a growing emphasis on athletics, and differing visions put forth in a series of master plans.

The campus has undergone many changes since the University was chartered in 1856:

- Educationally: a recipient of the Morrill Land Grant College Act of 1862, followed by establishment of a post-Civil War Agricultural Experiment Station and the formation of the extension service; transformation from an agricultural school into a major research university.
- Socially: development from an all-male military system into a coeducational institution; the modifications from barracks to dormitories to a predominantly commuter community to today's expansion of on-campus and nearby residential housing units.
- Culturally: Antebellum agrarian interests; infusion of students via the GI Bill of Rights' guarantees of higher educational opportunities to veterans; commitment to developing a diverse faculty, staff, and student body following the Civil Rights movements.

The original campus was 428 acres of rolling farm land provided by Charles Benedict Calvert. The dominant building pattern over the years was to place buildings on ridges and leave the valleys open. A series of master planning efforts through the 1920's contributed still recognizable patterns of development. A central academic core surrounded by men's, women's, and faculty residential quadrangles, by Calvert and Washington Quads, and by a women's dormitory group, was arranged in a horseshoe format surmounting the ridge of the valley that was to become McKeldin Mall. In the 1930's farming, agricultural



programs, and the Agricultural Experimental Station were relocated from the region surrounding Rossborough Inn to recently purchased farmland north of Campus Drive. McKeldin Mall, a large quadrangle surrounded by buildings, was established at that time and remains an iconic university space.

Over the years, the campus expanded and changed but the emphasis on ridges with buildings and academic buildings around open spaces remains a dominant feature. The 1,340 acre campus now has a mix of districts that cross six major landscape typologies common among university campuses throughout the United States:

- natural (Paint Branch and Campus Creek);
- agrarian (Campus Farm);
- classical (McKeldin Mall and Hornbake Plaza);
- picturesque (Chapel Lawn and University Golf Course);
- contemporary (Clarice Smith Performing Arts Center and Riggs Alumni Center); and
- urban (Northeast District).

The campus retains major iconic open spaces such as McKeldin Mall, the open space/recreational fields along Campus Drive, the Memorial Chapel Lawn, the lawn in the Fraternity Row horseshoe and Mayer Mall.

The Facilities Master Plan of 2001-2020 brought significant changes to campus planning. While previous plans focused on building placements, the focus of the 2001 Plan shifted to sustainability and the protection of the environment. The Plan gave more attention to environmental stewardship, cultivating land, and nurturing the trees and streams that are part of the university community and extend locally and regionally.

Following the 2008 designation of the campus as an Arboretum & Botanical Garden, the 2011-2030 FMP was a landscape master plan to guide important campus placemaking for the 21st century.

IV. Institution Demographics

Both the diversity of the student population and the quality of students has risen over time. The campus counts the diversity of its students among its special strengths. As of fall 2016, 43.4 percent of undergraduate students identified as racial/ethnic minorities. The comparable statistic for graduate students was 20.5 percent. Moreover, approximately 33 percent of our graduate students are international. In addition, UMD operates with the highest admission standards in the University System of Maryland. The University of Maryland attracts to campus highly qualified students from all counties of Maryland, the other 49 states, and approximately 120 countries around the world. The enrollment data in the projected years are predicated upon full funding of the "USM Strategic Plan for Fiscal Year (FY) 2013" and beyond. Moreover, the data represent, over the relevant time period, the campus' contribution to meeting a state goal of having 55 percent of Marylanders earn a college degree by 2025. The data correspond to the university's 10-year enrollment projections that are filed annually with the USM office.

See following tables for historical, existing, and projected data.

TABLE 3 | Headcount Enrollment

	2011	2012	2013	2014	2015	2016	2026	10-Year Net Change
Undergrad FT	24,697	24,486	24,522	25,027	25,410	26,350	26,425	0.3%
Undergrad PT	2,129	2,052	2,136	2,029	2,033	2,122	2,100	-1.0%
Total Undergraduate	26,826	26,538	26,658	27,056	27,443	28,472	28,525	0.2%
Graduate FT	7,536	7,788	7,677	7,911	8,091	8,094	7,945	-1.8%
Graduate PT	3,269	2,922	2,937	2,643	2,606	2,517	2,525	0.3%
Total Graduate	10,805	10,710	10,614	10,554	10,697	10,611	10,470	-1.3%
Total	37,631	37,248	37,272	37,610	38,140	39,083	38,995	-0.2%

Source: UMD Office of Institutional Research, Planning and Assessment (IRPA)

TABLE 4 | Total Full Time Equivalent Enrollment

	2016	2026	10-Year Net Change
Undergraduate	26,931	26,520	-2%
Graduate	6,879	6,630	-4%
Total	33,810	33,150	-2%

Source: UMD Office of Institutional Research, Planning and Assessment (IRPA)

TABLE 5 | Faculty Headcount

	2011	2012	2013	2014	2015	2016	2026	10-Year Net Change
FullTime	3,257	3,387	3,378	3,438	3,482	3,575	3,988	12%
PartTime	991	1,000	1,032	1,029	1,027	1,035	1,154	11%
Total	4,248	4,387	4,410	4,467	4,509	4,610	5,142	12%

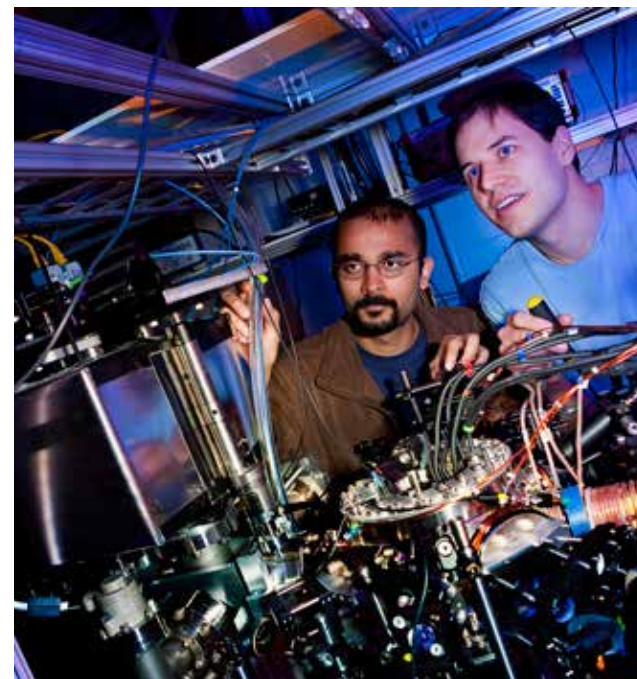
Source: UMD Office of Institutional Research, Planning and Assessment (IRPA)

TABLE 6 | Staff Headcount

	2011	2012	2013	2014	2015	2016	2026	10-Year Net Change
FullTime	4,858	4,990	5,066	5,239	5,078	5,270	5,879	12%
PartTime*	4,345	4,306	4,208	4,257	4,204	4,192	4,676	12%
Total	9,203	9,296	9,274	9,496	9,282	9,462	10,555	12%

* Official part-time counts do not include hourly employees or student workers included in the Space Guidelines Application Program Report (SGAP).

Source: UMD Office of Institutional Research, Planning and Assessment (IRPA)



V. Planning Foundation and Framework

This section presents the foundation upon which the Plan is based and concludes with the Physical Planning Principles. These Principles continue from the 2001-2020 FMP and guide the goals and recommendations of the Plan.

A. Strategic Priorities

Four strategic priorities cut across the global issues that remain the heart of the Plan's holistic approach of informing and affirming goals and recommended actions. These priorities are the pillars on which the 2011-2030 FMP and this five-year FMP update are built.

Excellence: UMD has reaffirmed in all official university documents its commitment to excellence. In accord with this mandate, this Plan aspires to excellence in its vision of a campus serviceable for the next decades, confident and outspoken in its identity, and treasured by alumni and friends. The Plan presents a blueprint for future development that is visionary and realistic. The university is required to present a master plan that will guide the future orderly development of the campus. Its goal is to imagine a campus that excels in beauty and functionality and creates the optimum environment in which the academic enterprise and the university family can flourish. Long-term development patterns, land use, redevelopment and renovation strategies will be designed to utilize and balance available land and financial resources effectively. Projected development patterns will be a model of smart growth.

Connectivity: Members of the university are part of a community within a natural and cultural context, and connections to the community are a significant part of the Plan. Design and landscape patterns connect districts one to another and connect the campus to the Mid-Atlantic ecology. Planning for all facilities and physical systems is designed to increase the sense of community among those on and off campus. The Plan recognizes that the campus' boundaries are porous and that interaction and connectivity to the City of College Park and the region around us is an important goal. The Plan positions the campus as an important and attractive destination for residents of Maryland and the region.

Stewardship: The campus is heir to an architectural and cultural heritage that we intend to preserve and

treasure. Many of our structures and open spaces recognized as excellent examples of American campus planning traditions, date from the 1850's. They give the university a distinct character that is worth preserving. Protecting and building upon our heritage means adding landscape and structures that are in harmony with its setting, that blend with past successes, and that set new standards for aesthetic appeal and effectiveness while promoting the advancement through innovation in all programs. Beyond addressing regulatory mandates, the university also plays a significant role in protecting the land and environmental features that are of major importance to the regional ecology. Our treatment of urban tree canopies, cultivation of Arboretum & Botanical Garden collections, and concern in the placement of structures, roads, and trails are all examples of our commitment to being good stewards of the environment.

Sustainability: The university will continue its national leadership in sustainability. Sustainability initiatives and recommendations are spread throughout the Plan. As sustainability continues to be defined and measured, the university will serve as a laboratory and model for best practices. Leadership in Energy and Environmental Design (LEED) standards for buildings, efficient management of wastewater and stormwater runoff, and reduction of carbon emissions are among our goals. Sustainability measures are a key component of landscape planning, underlie transportation initiatives, and influence the placement and design of buildings as part of commitment to integrated planning, design and construction practices.

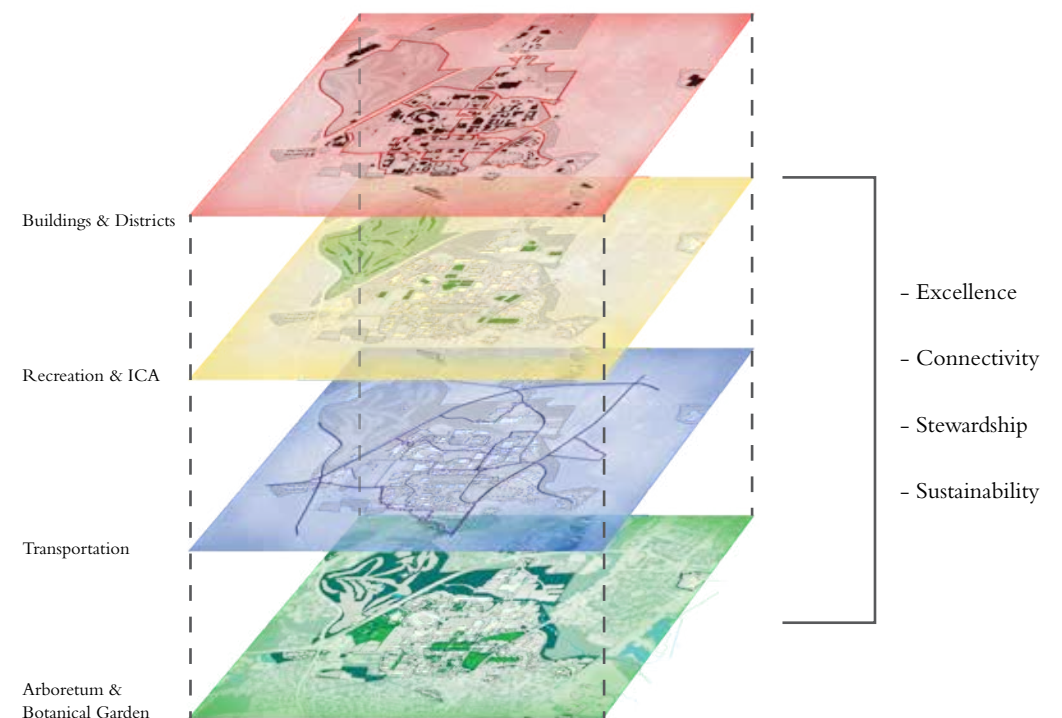


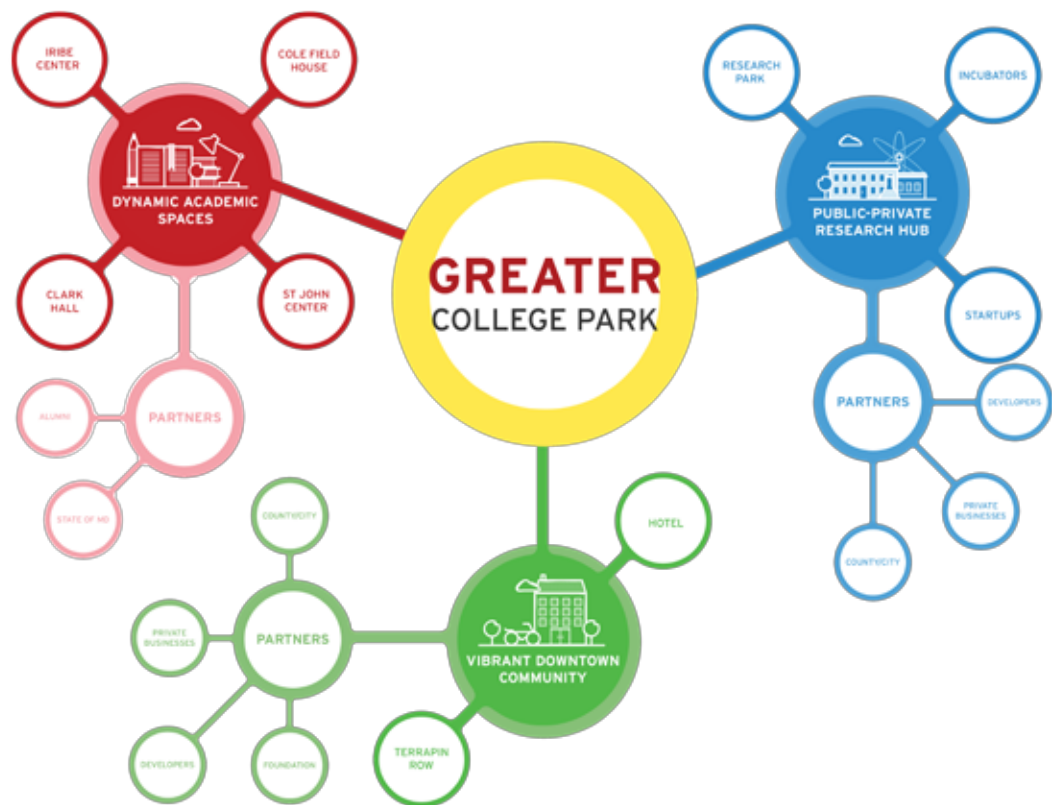
B. A Holistic Approach

The 2011-2030 Facilities Master Plan takes a holistic approach, looking at the main campus as a relatively finite space that supports concurrently four major layers of land use.

1. The first layer considers the space in terms of the campus landscape, a tangible resource, which is the University of Maryland Arboretum & Botanical Garden. From this perspective, the Plan takes into account the ecological context of the setting, regional streams, waterways, urban forest canopy connections, etc. It considers the types of conservation, stewardship, tree collections, placement of gardens, and sustainability measures that will protect, preserve, and enhance this invaluable natural resource measured against State of Maryland goals for increasing the overall tree canopy and ensuring environmental stewardship.
2. The second layer considers the campus as the base for a transportation network that provides increased connectivity to the campus internal system of roads, paths, and trails that permit pedestrian and vehicular circulation. Multimodal transportation issues focus on the route matrices comprising pedestrian links and pathways, private and commercial vehicle roadways and other transit routes (i.e., Metro, Shuttle-UM, Purple Line). From this perspective, the Plan looks at ways to more effectively link campus systems to surrounding transportation and circulation systems.
3. The third layer considers use of the land and includes plans for recreational spaces and intercollegiate athletics fields. Concerns at this level are the creative use of limited spaces that can accommodate formal or informal recreational and sports activities that require significant land resources.
4. The fourth layer looks at the land in terms of its use for building renewal and new building development that house research laboratories, classrooms, residence halls, event centers (performing arts, athletic, alumni center), and administrative offices and buildings. Concerns at this level are the projected placement of buildings over a two-decade term for effective land use.

A LAYERED APPROACH • planning for a holistic community





C. Greater College Park

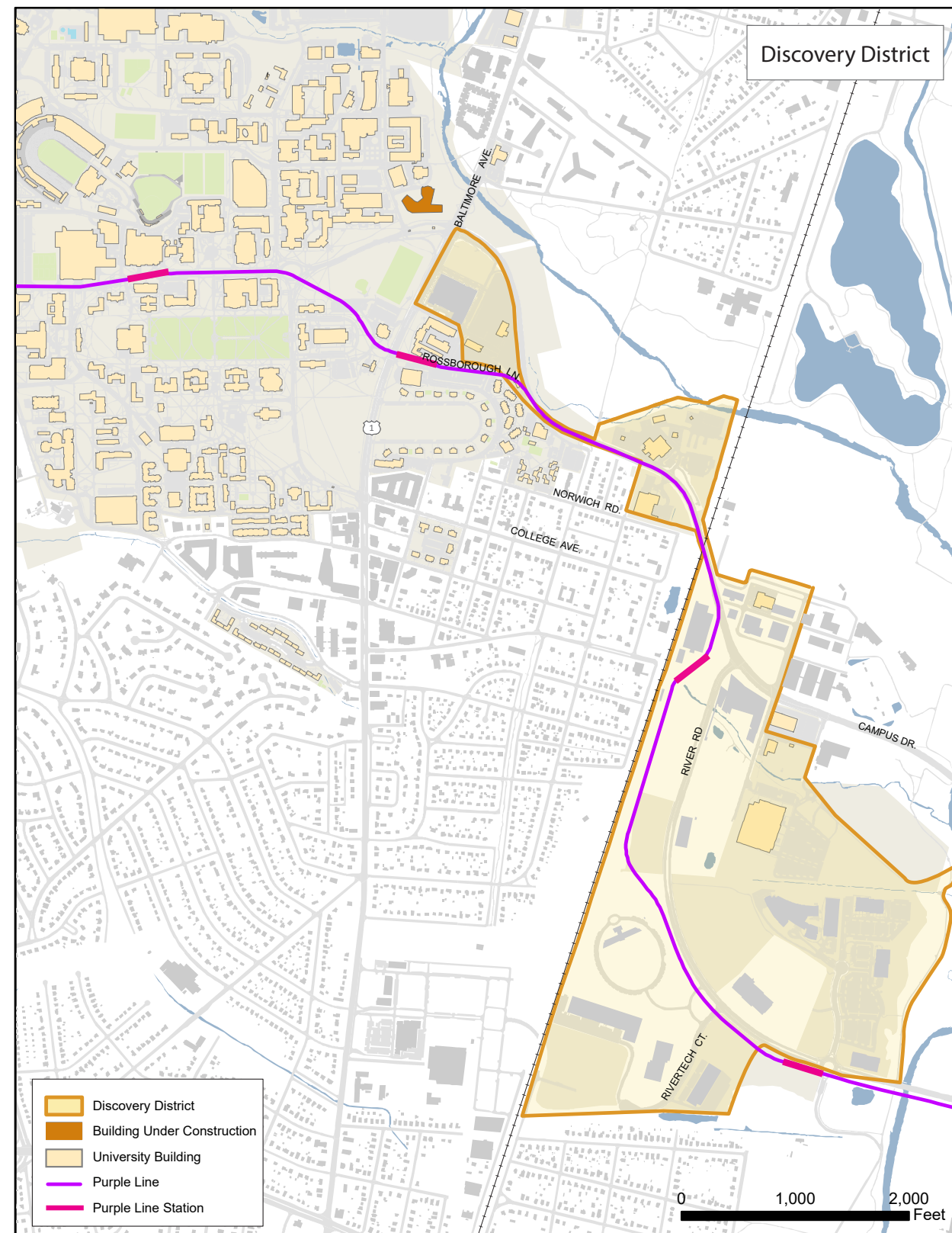
A new section in the 2016 update to the university’s Strategic Plan, Greater College Park, addresses the university’s commitment to its mission to support economic development in the state. The Greater College Park initiative is transforming the Baltimore Avenue corridor and surrounding area into a major development area for the region.

In cooperation with local, county and state officials, UMD has made significant advances in the revitalization of the College Park community with respect to public safety, public education and public transportation. Private investment is transforming housing, shopping and dining options. The university is creating a new innovation ecosystem to support startups and mature businesses interested in partnering with faculty and students. The futures of UMD and its surrounding community are deeply intertwined. Around the state, new initiatives have expanded UMD’s role in economic development, pursuant to its land-grant mission.

The University of Maryland continues working with partners to create the modern land-grant university. Research and industry, public and private enterprise, are working in close collaboration to form an academic and economic engine for our region and our nation.

Over \$1 billion in private investment in Greater College Park includes innovation and improvements to local schools, transportation enhancements including the coming Purple Line, increased attention to public safety, focus on sustainability, and an unprecedented boom in development projects on and off campus.

The University of Maryland Discovery District is the heart of this new regional ecosystem of innovation and entrepreneurship, with dynamic new academic spaces, new amenities, and public-private partnerships. Encompassing over 150 acres that stretch from Baltimore Avenue to the research-rich community at the College Park Metro and along River Road, the Discovery District will be the epicenter of academic, research and economic achievement. The Discovery District sits at the intersection of the Green and Purple Lines, making it a key gateway to the state’s flagship university.





D. Physical Planning Principles

Strategies, recommended actions to meet the goals, and proposed development projects are guided by twelve planning principles that were established in the 2001-2020 Facilities Master Plan and were embraced and updated in the 2011-2030 Plan.

- Support the Institutional Mission

The land and other physical resources of the University of Maryland campus will be used to support the university's mission and programmatic needs and help achieve its strategic plan and academic aspirations.

- Enhance Campus Security

Planning and design of all areas of campus will make personal safety and the security of public and personal property a priority.

- Practice Environmental Stewardship in Landscape Design and Maintenance

The campus plan will protect and enhance existing natural environments (woodlands, wetlands, and floodplains) and create connections with adjacent habitats. New development will be guided by principles of smart growth and environmental stewardship.

- Enhance Environmental Performance of Buildings and Utilities on Campus

Long-term environmental and economic sustainability will continue to be primary goals in the planning for new facilities, renovation of existing buildings, and the location of supporting utilities and infrastructure. LEED silver certification will remain the campus' minimum standard for new construction and major renovation. Facility siting and development will maximize solar orientation and natural lighting, maximize energy efficiency, and incorporate smart energy technologies, thereby minimizing natural resource depletion and environmental degradation.

- Encourage the Use of Transportation other than Personal Vehicles

Plans for development will reduce the number of automobiles on campus and encourage alternative modes of transportation—shuttle busses, bicycles, new light rail or Metro line—in order to minimize vehicular congestion and support the Climate Action Plan and campus sustainability priorities.

- Increase the Access and Appeal of the Campus for Pedestrians

Campus planning will encourage pedestrians to move easily and safely across the campus through appropriate design in and between campus areas and through careful management of vehicular flow.

- Strengthen Community Connections

Planning and design patterns will strengthen connections to the surrounding neighborhood communities and ensure that the campus is an important and attractive destination for residents of the region and all Marylanders.

- Create an Attractive, Coherent Design for the Campus

Circulation patterns, a landscape framework, an open space network, and prescribed building placements will connect the spaces, corridors, and districts within a unified campus setting. The coherent campus design will recognize and reinforce natural environmental patterns, campus planning traditions and neighborhood organizational patterns, and will increase operational effectiveness.

- Achieve Appropriate Development Patterns

Strategies for long-term development, land use, redevelopment and renovation will balance available land and financial resources effectively and will respect the desire to create a coherent and sustainable campus. Projected development patterns will emphasize appropriate building densities and configurations (e.g., compact or spread out) that accommodate goals such as walkability, connectivity, community, and campus carbon neutrality.

- Emphasize the Importance of Open Spaces

Campus design will affirm the essential importance of open spaces—natural areas, lawns, malls, plazas, patios, places to sit, etc.—to the image, organization, and quality of the campus environment.

- Improve the Quality and Attractiveness of the Campus Landscape

Landscape plans will enhance the campus' Arboretum & Botanical Garden to bring aesthetic pleasure to the campus community and enhance the university's teaching and research missions.

- Embrace Campus Traditions and Heritage

New development on the campus will use nationwide campus planning best practices. Plans will respect historic and existing development patterns, affirm intrinsic cultural and social traditions, and reinforce important district-specific land use and physical characteristics.



Memorial Chapel



Brendan Iribe Center for Computer Science and Innovation

VI. Plan Update

This FMP update is consistent with the goals and objectives of best practices in smart growth, protecting our environment, and enhancing our communities. UMD follows the capital budget guidelines for PlanMaryland in its annual capital budget submission and each year has determined that all requests are consistent with the goals and objectives for PlanMaryland.

The entire main campus of UMD falls within a PlanMaryland Targeted Growth and Revitalization Area, and therefore all projects proposed on the main campus are within a Priority Funding Area. Out of the nine capital budget requests in UMD's FY 2019-2023 Capital Improvement Program, only two are in a preservation/conservation area. These two projects, A. James Clark Hall and Brendan Iribe Center for Computer Science and Innovation, are in a Natural Resource Area because a portion of the site is within the 100-year floodplain. UMD coordinated with the Maryland Department of the Environment (MDE) during design and is conforming to all MDE regulations for construction.

Tables 7 and 8 summarize the implementation plan for the remaining 2017-2030 planning timeframe. Reference Appendix A for the full project list.

TABLE 7 | Fall 2017 - 2020 Project Summary

Project Type	State Supported Projects		Auxiliary Projects		Discovery District Projects		Total Projects	
	#	GSF	#	GSF	#	GSF	#	GSF
Planned New Construction	2	280,430	4	782,710	0	0	6	1,063,140
Planned Building Renovation	3	162,770	6	278,551	0	0	9	441,321
Planned Landscape and Transportation	17	NA	0	0	0	0	17	NA
Planned Building Demolition	1	1,787	9	41,924	0	0	10	43,711
Total	23	444,987	19	1,103,185	0	0	42	1,548,172

TABLE 8 | Fall 2021 - 2030 Project Summary

Project Type	State Supported Projects		Auxiliary Projects		Discovery District Projects		Total Projects	
	#	GSF	#	GSF	#	GSF	#	GSF
Planned New Construction	22	1,895,624	23	2,659,000	2	2,360,200	47	6,914,824
Planned Building Renovation	24	1,546,204	22	1,011,821	0	0	46	2,558,025
Planned Landscape and Transportation	47	NA	0	0	0	0	48	0
Planned Building Demolition	12	271,791	31	460,923	0	0	43	732,714
Total	105	3,713,619	76	4,131,744	2	2,360,200	184	10,205,563

The recommendations of the 2011-2030 Plan are set forth under three primary areas: Environmental Stewardship and Sustainability; Landscape Design and Land Use; and Vehicular and Pedestrian Circulation Systems.

A. Environmental Stewardship and Sustainability

For the past decade the University of Maryland has been recognized for its leadership in environmental stewardship and sustainability. Not content to merely follow regulations and recommendations, the university intends to be a model in innovation, consistency, and completeness of sustainability and stewardship measures. Projects and activities will be used to educate students, faculty, and staff and to encourage a paradigm shift in the behavior and attitudes of members of the university family. They will advance the university's position at the forefront of institutions taking a proactive stance for efficient and judicious use of natural resources. Identified goals are as follows:

- Transition to a campus of buildings and facilities that support the strategic goal of carbon neutrality.
- Reduce total and per capita energy demand on campus.
- Reduce total and per capita water consumption on campus.
- Incorporate Life Cycle Assessment into decision-making for all construction projects.
- Design with educational opportunities in mind to maximize use of campus as a living laboratory of sustainability best practices and to become a model sustainable community.
- To realize and reveal the ecosystem service potential of an increasingly urbanized landscape, and conserve and interpret the campus forest as a key component of the Climate Action Plan.
- Increase the ability of the campus natural hydrologic cycle to deal appropriately with stormwater runoff.
- Plan and manage utility systems to avoid conflict with landscape and environmental improvements.

Accomplishments in the 2011-2017 Period:

- The university was named among the top thirty green power users for the second year in a row.
- Free-standing bioretention facilities have been designed and implemented via grants with academic partners and external environmental liaisons.
- Ecosystem service potential has been incrementally advanced and revealed through installation of rain gardens, managed vegetated bioretention features and integrated pollinator support features.
- Interpretation of various stormwater treatment facilities through signage, website narrative and social media, and public engagement has resulted in heightened awareness.
- Updated documents to quantify the benefits of the campus forests with current efforts focused on the importance of campus forest assets to climate change resiliency.
- New projects are designed with Environmental Site Design features like green roofs and rain gardens, designed to mimic the natural hydrologic cycle.
- Campus Creek, the main stream through the campus core, is being restored to function as a more natural waterway.
- Faculty and staff seek grants and work with students to design and construct stormwater treatment facilities to treat stormwater runoff and restore the hydrologic cycle.
- Creation of a comprehensive utility inventory in the university's Geographic Information System will be used to plan and avoid conflict with future landscape and environmental improvements.

B. Landscape Design and Land Use

The aim of this plan is to organize landscape and open space, together with campus architecture, in ways that promote community and social interaction, facilitate outdoor learning, and provide spaces for recreation. Landscape design will be used to expand awareness of the natural contours, typologies, and ecological systems that surround us and our role in environmental stewardship. The existing and proposed gardens, urban forest canopy, natural forest stands, protected streams, and pedestrian walkways will increase the aesthetic appeal of the campus and preserve the space as an oasis in a complex urban environment. Finally, the strategies in this section are designed to conserve, preserve, develop and restore land in the best interests of the environment, the university community and the citizens of the region. The goals are:

- Identify, prioritize, fund and implement key environmental, open space and landscape projects as a critical part of the campus infrastructure.
- Recognize and carefully assess the intrinsic natural value, the cultural value, the pedagogical value, and the commercial economic value of university land.
- Reveal campus heritage significance and develop strategies to preserve and enhance valued existing campus landscapes and plan and develop new open spaces and botanical gardens.
- Develop a landscape plan that uses the ABG to promote ecological awareness and celebrate and communicate a sense of place unique to the campus.
- Establish the ABG landscape as inclusive and accessible space that celebrates the university heritage, enhances personal security, and brings aesthetic pleasure to all campus citizens and visitors.

Accomplishments in the 2011-2017 Period:

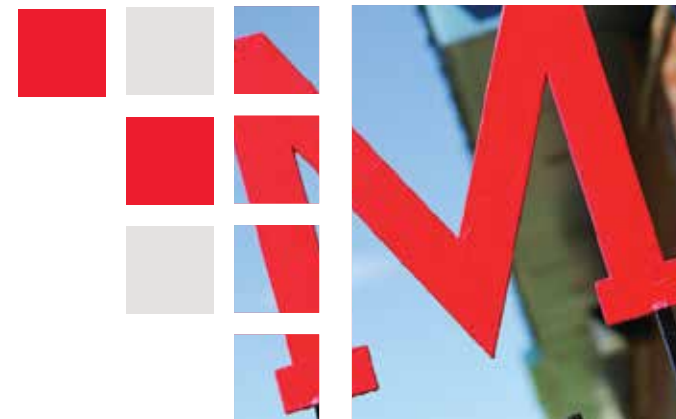
- Forest conservation and enhancement are primary goals of the campus Arboretum & Botanical Garden.
- UMD has received the Tree Campus USA® recognition for nine consecutive years.
- Standards of tree preservation and canopy compensation for losses have advanced on all fronts.
- Joint reforestation projects with Metropolitan Washington Council of Governments Anacostia Watershed Restoration Partnership (WCOG-AWRP), among others, have resulted in approximately one acre of additional forest cover.
- An introduction to the campus as an arboretum is included in new faculty orientation as an academic resource.
- Washington Quad was renovated, with major enhancements in 2011.
- The Landscape Master Plan for renewal and enhancements to McKeldin Mall was completed in 2015. The western portion (at McKeldin Library's front yard) was completed in 2016; phased replacement of deteriorating water and storm drain lines within McKeldin Mall continues in 2017.
- A square and sculpture dedicated to Frederick Douglass was designed and installed at Hornbake Plaza in 2016.
- The yard east of H.J. Patterson Hall has been transformed into a plaza as part of the Edward St. John Learning and Teaching Center, which opened in spring, 2017.



C. Vehicular and Pedestrian Circulation Systems

The University of Maryland is an urban campus with students, faculty and staff who live both on campus and throughout a large metropolitan area. As a result, the university requires a multi-modal system of vehicle and personal circulation systems for those who need to access the campus and to move across it. Safe, pleasant, and efficient ways to move around the campus are a priority. Equally important is the integration of campus systems with the transportation systems that serve the neighborhood and surrounding communities. This Plan calls for universally accessible walkways, campus roads, campus and transportation systems that create a positive experience for pedestrians, bicyclists, and those using scooters, motorcycles or other motorized vehicles. The goals below acknowledge the importance of all modes of transportation and suggest ways to improve their connectivity

- Support a campus-wide network of effective transportation.
- Provide a coherent network of road and traffic patterns using a whole-system approach.
- Promote communication strategies that support a smooth system of transportation and movement across campus.
- Collaborate with regional entities to enhance movement to and from campus.
- Support a more pedestrian-friendly campus that encourages and supports efficient, pleasant, and safe walking experiences.
- Ensure that campus walkways are appealing and comfortable places.
- Reduce barriers for pedestrians and ensure that sidewalk design and crosswalks are accessible to all.
- Partner with adjacent jurisdictions to ensure paths, sidewalks, and roads in the surrounding communities facilitate walking to campus.
- Support the growth of a bicycle culture that entices more commuters to ride bicycles to campus.
- As part of a multi-modal transit friendly campus, support a high quality Shuttle-UM system that provides service to and across campus.
- Install infrastructure which supports and enhances the use of transit.
- Provide programs and practices to encourage the use of transit, carpools, and other alternatives to single occupancy vehicles.
- Reduce personal vehicle congestion on campus.



Accomplishments in the 2011-2017 Period:

- Covered bicycle parking areas were installed as part of the reconstruction of the loading dock and delivery zone for Denton Area Dining Hall in 2011.
- In 2014, shared-lane markings or sharrows and accompanying "share the road" signage were installed in 66 locations, clarifying an intra-campus bicycle network that is planned to be enhanced and extended in 2018.
- In cooperation with the City of College Park, the university selected Zagster as the provider and operator of mBike, a bicycle-sharing system, with seven on-campus and seven city rental stations in 2016. Two additional City of College Park stations, and two in University Park, were added in 2017.
- Seven permeable paver pads supporting multiple bicycle racks were installed at campus locations evidencing the most need of additional bicycle parking during 2017, in addition to the provision of 50 new racks between 2011-2017.
- Replacement of curbs along accessible pedestrian routes continues in the on-going effort to create access for mobility-challenged individuals.



D. Campus Districts and Campus Growth

Every district has its own culture and character, evidenced in each district's natural features, open spaces, building types, and their uses.

To enhance connectivity across campus, this Plan update continues to recommend creating:

- a more coherent and consistent signage system with appropriate hierarchy for pedestrians, bicycles, and vehicles. Signage and wayfinding cues will be extended beyond the physical campus on surrounding roads;
- more consistent streetscapes, including sidewalks, street trees, bioswales and rainwater infiltration and on-road bicycle lanes; and
- improved major campus gateways, particularly at University Boulevard, Campus Drive, and Mowatt Lane.

It is recommended that campus growth continue according to the established Plan framework. When new programs demand growth, facilities will be located generally with:

- academic structures in the central area primarily in the Northeast and South Districts, via in-fill;
- residential and support services such as dining and recreation primarily in the Northwest and South;
- intercollegiate Athletics and University Recreation and Wellness facilities in the North, Northwest and West Districts; and
- large parking garages at the perimeters.

Improvement projects in each campus district are described and depicted on charts and maps. Significant projects for landscape (open spaces, botanical gardens and natural systems), transportation and infrastructure system network enhancements are identified and stand alone in the charts and maps.

New capital building projects are recommended to be holistically inclusive where practical, and include associated:

- landscape enhancements such as open spaces, front yards, service areas, street trees, foundation, understory, local gardens and area plantings;
- ecological enhancements such as applicable technologies addressing stormwater management, water capture systems, associated plantings, etc.;
- linear circulation and transportation modes such as enhancements to adjacent streets, bicycle and pedestrian networks, including considerations for the disabled, lighting, and site furnishings; and
- utilities renewal and enhancements in conjunction with new development and facilities renewal.

With the financial challenges of building structured parking and the continuing reduction in available parking spaces, transportation demand management strategies have been implemented to reduce the number of personal vehicles needing to park on campus. Parking spaces total 17,399 and are projected to reduce by 920 by 2019. Structured parking garages with some parking combined with new facilities are proposed as the solution for future parking demand.

Accomplishments in the 2011-2017 Period:

- Completion of 55 new construction, renovation, landscape, transportation, and demolition projects, as indicated in Table 9. Capital building construction projects include: Oakland Hall and Prince Frederick Hall residences, University House, Wye Oak Building, Edward St. John Learning and Teaching Center, A. James Clark Hall, and The Hotel at the University of Maryland.
- Design and construction of three new major buildings (Brendan Iribe Center for Computer Science and Innovation, New Cole Fieldhouse, and New School of Public Policy Building), four major renovations, and two landscape and transportation projects are in process during 2017.
- Greater College Park projects currently in progress include the College Park Academy (launched in 2013), and support of the Purple Line.
- Strategic plans by the Departments of Resident Life and Residential Facilities, updated in 2017, propose a new dining hall and residential complex at a site at the juncture of the West, the Northwest, and the Northeast Districts.

E. Campus Map

A map representing the proposed plan is attached in Appendix B.



Frederick Douglass Square

VII. Changes to Previous Plan

Six calendar years (2011-2017) of the 2011-2030 FMP have elapsed. We have completed 55 of the 132 projects proposed in that plan. A summary of the current 10-year planning period follows, along with a 20-year summary.

TABLE 9 | Summary Planning Periods

I. Summary Planning Period 2011 - 2020

2011-2020	Projects Planned 2011	Projects Planned 2017 (1)(2)	Projects Completed 2011 - 2017	% of 2017 Planned Projects Completed	GSF Planned 2011	GSF Planned 2017 (1)(2)	GSF completed 2011 - 2017	% of 2017 Planned GSF Completed
New Construction	29	17	11	65%	4,156,782	2,859,339	1,796,199	63%
Renovations	33	28	19	68%	2,071,922	1,311,572	870,251	66%
Landscape/Transportation Improvements	38	22	5	23%	NA	NA	NA	NA
Demolitions	32	30	20	67%	313,165	170,068	126,357	74%
Subtotal	132	97	55	57%	6,541,869	4,340,979	2,792,807	64%

II. Summary Planning Period 2021 - 2030

2021-2030	Projects Planned 2011	Projects Planned 2017 (2)	GSF Planned 2011	GSF Planned 2017 (2)
New Construction	25	47	2,942,760	6,914,824
Renovations	31	46	1,889,401	2,558,025
Landscape/Transportation Improvements	25	47	NA	NA
Demolitions	25	43	210,500	732,714
Subtotal	106	183	5,042,661	10,205,563

III. Summary Combined Planning Periods 2011 - 2030

Total 2011-2030	Projects Planned 2011	Projects Planned 2017 (1)(2)	GSF Planned 2011	GSF Planned 2017 (1)(2)
New Construction	54	64	7,099,542	9,774,163
Renovations	64	74	3,961,323	3,869,597
Landscape/Transportation Improvements	63	69	NA	NA
Demolitions	57	73	523,665	902,782
Total	238	280	11,584,530	14,546,542

(1) Includes completed projects or GSF.

(2) Difference in the number of projects or GSF can be attributed to shifts from one period to another, project size or site changes, and/or shifts between renovation and demolition.

A. Changes to Institution Description

- The University of Maryland's total number of buildings decreased from 460 buildings to 442 as a result of demolitions associated with the Discovery District development and a reduction in the number of leased facilities.
- The university has sited projects that reflect adjustments to the 2011-2030 Facilities Master Plan. Changes in the siting, building/project numerical designations include the following: revised location of six projects (New School of Public Policy Building, New Cole Fieldhouse/Indoor Practice Facility, Administrative Office Building, a new SCUB, Engineering Annex, Brain and Behavior Building); sites for the Discovery District; and siting of four projects not proposed in the FMP (Iribe Center, Annapolis Hall Expansion, and the New Chemistry, Wing 1 Building and The Hotel at the University of Maryland/ Garage).
- Since 2011, UMD purchased 13 acres and sold 19 acres for a net loss of six acres (current total acreage is 1,340).



Physical Sciences Complex

Appendix A | Project List

Completed New Construction July 2011 - June 2017				
Building #	Project	District	GSF	Date Completed
039	Van Munching Hall Addition/Renovation	S	15,282	2011
419	Oakland Hall	NW	233,436	2011
164	University House	W	15,133	2012
424	Shuttle Bus Facility	N	10,947	2012
426	Heavy Equipment Building	N	7,136	2012
415	Physical Sciences Complex -Phase 1	NE	172,986	2013
428	Wye Oak Building	N	13,520	2013
425	Prince Frederick Hall	S	186,849	2014
226	Edward St. John Learning and Teaching Center	CC	180,744	2017
429	A. James Clark Hall	NE	184,715	2017
E1	Discovery District Mixed-use Development: Hotel and Garage	E	775,450	2017
Total			1,796,199	

Completed Renovation July 2011 - June 2017				
Building #	Project	District	GSF	Date Completed
059	Chincoteague Hall	CC	22,647	2012
089	Engineering Laboratory Building	NE	5,800	2012
099	Bel Air Hall	NW	20,090	2012
115	A.V. Williams Building	NE	114,118	2012
171	House 171	E	10,445	2012
176	House 176	E	11,833	2012
810	Severn Building - Phase 1 And 1A	OP	53,677	2012
007	Pocomoke Building	E	30,346	2013
091	Chemistry Building	NE	40,500	2013
098	Centreville Hall	NW	139,888	2013
254	Elkton Hall	NW	115,568	2013
077	Main Administration Building	CC	41,299	2014
810	Severn Building - Phase 3	OP	38,900	2015
141	Tawes Hall	W	31,550	2015
383	Paint Branch Building	OP	38,280	2016
810	Severn Building	OP	22,080	2016
810	Severn Building - Phase 2	OP	49,230	2016
073	H.J. Patterson Hall	CC	56,600	2017
074	Holzapfel Hall	CC	27,400	2017
Total			870,251	

Completed Landscape and Transportation July 2011 - June 2017				
Project_ID	Project	Project Type	District	Date Completed
W_L1	Maryland Stadium Field Replacement (artificial turf)	Auxiliary	W	2012
CC_T3	Sharrows & Signage	Transportation	CC	2013
E_L3	Centennial Garden (Fraternity Row)	Landscape	E	2014
CC_T4	Zagster Bikeshare	Transportation	CC	2016
CC_L3	McKeldin Mall (partial)	Landscape	CC	2016

Completed Demolition July 2011 - June 2017				
Building #	Project	District	Building GSF	Date Completed
050	Grounds Office Building	N	3,244	2012
066	West Education Annex	S	2,572	2012
002	Harrison Laboratory	E	56,246	2014
012	Plant Operations & Maintenance Shop	E	11,832	2014
013	Shuttle Bus Facility	E	5,862	2014
055	Plant Operations & Maintenance Storage	E	680	2014
075	Shriver Laboratory	CC	22,315	2014
100	Plant Operations & Maintenance Shop	E	1,829	2014
101	Plant Operations & Maintenance Shop	E	1,840	2014
112	Shuttle Bus Trailer	E	603	2014
208	Temporary Building	E	666	2014
212	Plant Operations & Maintenance Shop	E	1,874	2014
215	Building Services Operations	E	3,342	2014
216	Heavy Equipment Building	E	3,267	2014
217	Solid Waste Storage	E	682	2014
343	Campus Mail Facility	E	4,225	2014
385	Pest Control Trailer	E	610	2014
410	Shuttle Bus Trailer	E	546	2014
018	Police Substation (7505 Yale Avenue)	E	3,853	2015
200	Storage Facility	W	269	2016
Total			126,357	

Planned New Construction July 2017 - December 2020			
Site	Building	District	GSF
CC5	School of Public Policy Building and Site Development	CC	69,700
GC1	Indoor Driving Range	GC	1,000
NE8	Brendan Iribe Center for Computer Science and Innovation	NE	210,730
NW6	Replace Ellicott Dining Hall	NW	57,750
NW7	New Residence Halls (900 beds)	NW	303,500
W3	New Cole Fieldhouse	W	420,460
Total			1,063,140

Planned New Construction January 2021 - December 2030			
Site	Building	District	GSF
CC2	Benjamin Building/Center for Young Children	CC	95,700
CC3	Administrative Office Building	CC	57,100
E2	Discovery District Mixed-use Development: Discovery District - Phase 2	E	279,400
E3	Day Care Facility	E	13,500
E4	Discovery District Mixed-use Development: Leonardtown-Physical Distribution Center: Phase 3	E	2,080,800
GC2	Golf Course Maintenance	GC	10,400
GC3	B&LM Grounds Maintenance Replacement	GC	20,000
N2	Paint Branch Parking Garage - Phase 1	N	300,000
N2a	Paint Branch Parking Garage - Phase 2	N	300,000
N2b	Paint Branch Parking Garage - Phase 3	N	300,000
N4	Electric Substation	N	5,400
N5	Environmental Service Facility Expansion	N	10,100
N6	Xfinity Center Office Expansion	N	7,020
N7	Field Hockey and Lacrosse Complex Expansion	N	5,800
N8	Xfinity Center Addition (Basketball Practice Facility)	N	22,500
N9	Xfinity Center Addition (Gymnastics Practice Facility)	N	15,000
N10	Robert E. Taylor Stadium Expansion	N	2,640
N11	New Energy Plant	N	60,000
NE1	Campus Farm Master Plan - New Buildings and Renovations	NE	41,800
NE2	Brain and Behavior Research Building Phase 1	NE	113,775
NE3	Brain and Behavior Research Building Phase 2	NE	102,000
NE5	Physical Sciences Complex Phase 2	NE	106,300
NE7	Nutrition & Food Sciences	NE	94,000
NE9	Physical Sciences Complex - Phase 3	NE	102,400
NE10	Division of IT Building	NE	100,000
NE11	A. James Clark Hall - Phase 2	NE	54,500
NE12	Aerospace Engineering	NE	106,800
NE13	Chemistry - Wing 1 Replacement	NE	105,500

Planned New Construction January 2021 - December 2030			
Site	Building	District	GSF
NE15	SCUB Expansion	NE	8,540
NE16	Engineering Annex	NE	182,000
NW1	School of Public Health - Addition/Conversion - Phase 2	NW	27,299
NW3	Undergraduate Housing 1 (515 Beds)	NW	169,950
NW4	Undergraduate Housing 2 (515 Beds)	NW	169,950
NW5	Replacement Housing (650 Beds) + Residential Facilities Office Relocation	NW	240,300
OP1	Chesapeake Bay Mesocosm (near Avrum Gudelsky Building)	OP	8,000
S1	Architecture Building Additions	S	122,250
S2	Academic	S	79,800
S3	Public Protection and Security Research Building, SCUB Expansion and Site Development	S	134,000
S5	Visual Arts and Cultures Building	S	112,300
S7	South Campus Recreation Building	S	70,000
S8	Worcester Hall Replacement (450 beds), SCUB Expansion and Site Development	S	135,000
S9	Behavioral and Social Sciences Research Building	S	120,000
S10	Expand & Renovate Annapolis Hall	S	32,900
W2	Ludwig Soccer Stadium Upgrades (12,000 to 18,000 seats)	W	105,700
W4	Shipley Field Upgrades	W	16,900
W5	Gossett Football Team House Addition	W	7,500
W6	Campus Drive Parking Garage (2,200 spaces)	W	660,000
Total			6,914,824
Total both periods			7,977,964

Planned Renovations July 2017- December 2020			
Building #	Building	District	GSF
001	Energy Plant	E	39,655
006	Building 006	E	15,405
011	Building 011	E	9,016
064	Dorchester Hall	CC	35,436
091	Chemistry Building	NE	53,500
096	Cambridge Hall	NW	55,792
115	A.V. Williams Building	NE	101,770
147	Hornbake Library	NE	7,500
256	Ellicott Hall	NW	123,247
Total			441,321

Planned Renovations January 2021- December 2030			
Building #	Building	District	GSF
009	Memorial Chapel	CC	25,776
017	Cecil Hall	S	20,096
034	Jimenez Hall	CC	63,200
039	Van Munching Hall	S	34,900
040	Morrill Hall	CC	16,277
042	Tydings Hall	CC	101,945
043	Taliaferro Hall	CC	47,870
046	Marie Mount Hall	CC	114,757
047	Woods Hall	CC	24,055
048	Francis Scott Key Hall	CC	24,804
052	C. M. Mitchell Jr. Building	CC	19,840
071	Lee Building	CC	20,662
073	H.J. Patterson Hall	CC	62,372
076	Symons Hall	CC	54,753
077	Main Administration Building	CC	41,299
078	Reckord Armory	CC	35,541
079	Turner Hall	CC	25,666
080	Rosborough Inn	CC	8,963
081	Wind Tunnel Building	NE	31,567
082	John S. Toll Physics Building	NE	163,093
084	William E. Kirwan Hall	NE	25,981
108	Horse Barn	NE	4,188
109	Sheep Barn	NE	6,152
110	Cattle Barn	NE	6,105
115	A.V. Williams Building	NE	134,274

Planned Renovations January 2021- December 2030			
Building #	Building	District	GSF
121	Chestertown Hall	NW	29,090
122	Cumberland Hall	NW	124,486
142	Animal Sciences/Agriculture Engineering Building	NE	62,462
143	Benjamin Building	CC	112,505
144	Biology-Psychology Building	NE	250,240
145	Architecture Building	S	67,163
231	Microbiology Building	NE	88,285
237	Geology Building	NE	24,390
252	Denton Hall	NW	117,468
253	Easton Hall	NW	117,473
257	Ellicott Dining Hall	NW	48,280
258	Hagerstown Hall	NW	124,241
259	La Plata Hall	NW	137,723
296	Biomolecular Sciences Building	NE	24,866
309	Indoor Practice Facility	GC	20,963
362	Maryland Stadium Concessions 1	W	4,620
363	Maryland Stadium Concessions 2	W	2,663
364	Maryland Stadium Concessions 3	W	2,705
365	Maryland Stadium Concessions 4	W	11,193
367	Maryland Stadium Concessions 5	W	9,159
379	Gossett Football Team House	W	63,914
Total			2,558,025
Total for both periods			2,999,346

Planned Landscape and Transportation July 2017 - December 2020		
Site	Project	Project Type
CC_L1	Rosborough Inn Gardens Improvements	Landscape
CC_L2	McKeldin Library Hardscape and Landscape	Landscape
CC_L3	McKeldin Mall Improvements (phased)	Landscape
CC_L4	South Chapel Lawn Enhancements	Landscape
CC_L5	Chapel Fields Improvements	Landscape
CC_L6	South Gate Landscape Improvements	Landscape
CC_T1	Campus Drive at Anne Arundel: Create Pedestrian/Bike Paths	Transportation
CC_T2	Purple Line and Streetscape / Landscape Improvements	Transportation
E_L1	Route 1 Pedestrian Median Improvements (to be implemented by Maryland State Highway Administration)	Landscape
E_L2	Fraternity Row - multi-field layout, artificial turf (4 fields, 270' x 660' overall)	Sports Field
E_L3	Centennial Garden (Fraternity Row) Partial	Landscape
E_T1	Purple Line and Streetscape/Landscape Improvements	Transportation
NW_L3	Campus Creek Trail and Ecosystem Enhancements	Landscape
NW_L6	Relocation of Tennis Courts from New Cole Fieldhouse	Sports Field
W_T1	Lot 1 Road/Pedestrian/Bicycle Safety Improvements	Transportation
W_T2	Campus Drive West Gateway Enhancements	Landscape & Transportation
W_T4	Purple Line and Streetscape/Landscape Improvements	Transportation

Planned Landscape and Transportation January 2021 - December 2030		
Site	Project	Project Type
CC_L7	Garden of Reflection and Remembrance - Phase 2	Landscape
CC_L8	Morrill Hall Quad Improvements	Landscape
CC_L9	Anne Arundel Green	Landscape
CC_L10	Lot Y Conversion and Landscape Improvements	Landscape
CC_L12	Tawes Plaza Improvements	Landscape
E_L4	East Campus - Phase 2 Park	Landscape
GC_L1	Holman Short Game Expansion	Sports Field
GC_L2	Golf Course Ponds and Storm Water Management Improvements	Landscape
GC_L3	Perimeter Landscape Improvements University Boulevard and Adelphi Road	Landscape
N_L1	Paint Branch Drive Gateway Enhancements	Landscape & Transportation
N_L2	Recreation Fields on Paint Branch Parking Garage Roof	Sports Field
N_L3	Terrapin Trail Retention Pond Improvements	Landscape
N_L4	Paint Branch Drive Wooded Wetlands Improvements	Landscape
N_L5	Wooded Hillock Conservation Garden and Perimeter Landscape Improvements University Boulevard	Landscape
N_L6	Relocate Kehoe Track and Throwing Area	Sports Field

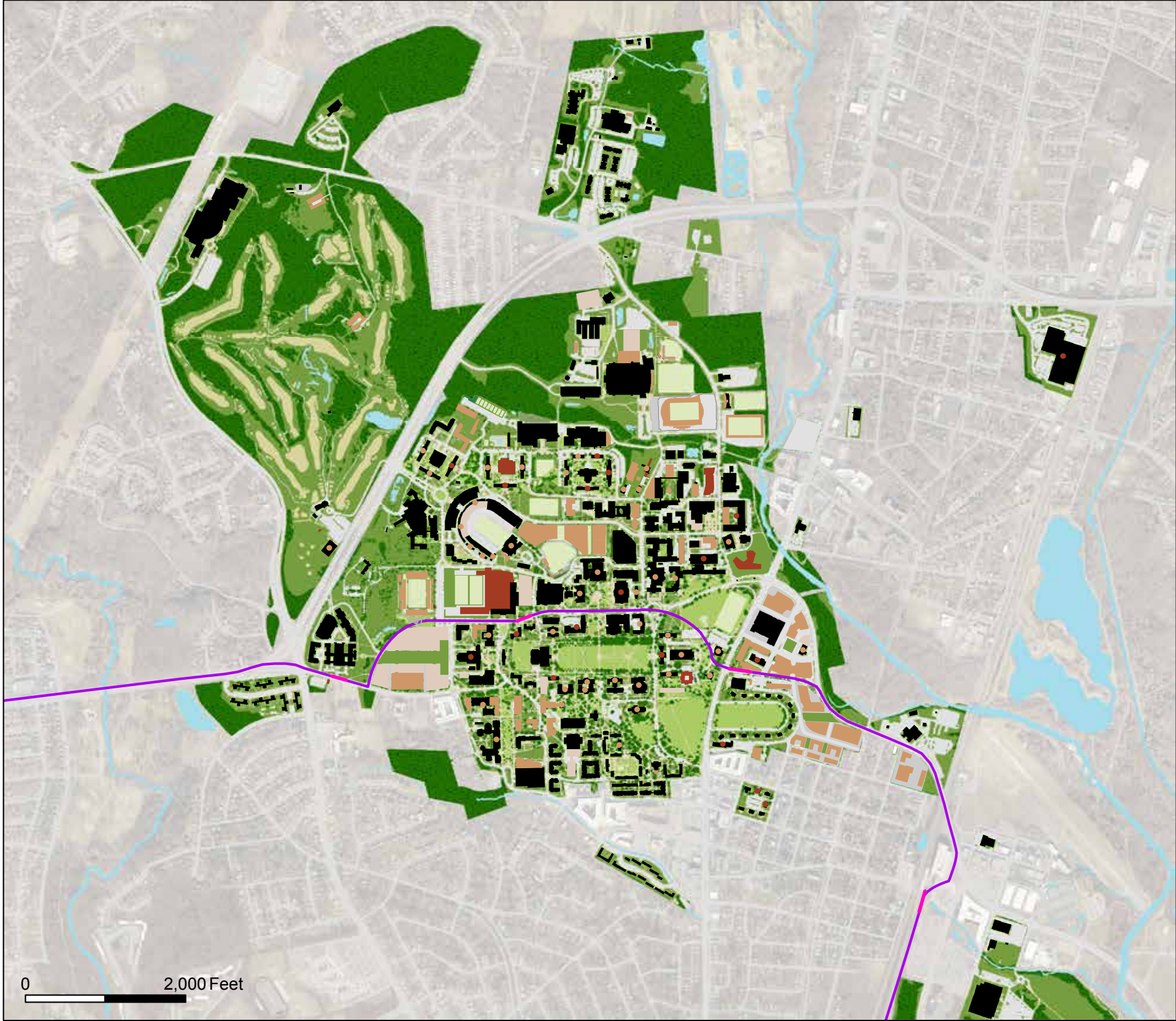
Planned Landscape and Transportation January 2021 - December 2030		
Site	Project	Project Type
N_L7	ICA/RecWell Field (Infield of Track)	Sports Field
N_T1	Pedestrian/Bicycle Improvements at Xfinity Center	Transportation
NE_L1	Hornbake Plaza Improvements	Landscape
NE_L2	Bioretention Garden Improvements (Technology Drive)	Landscape
NE_L3	Northgate Park (West) Landscape Improvements	Landscape
NE_L4	Animal Sciences Building Courtyard Improvements	Landscape
NE_L5	Kim Engineering Building Plaza Improvements	Landscape
NE_L6	William E. Kirwan Hall Courtyard Improvements	Landscape
NE_L7	Outdoor Volleyball Courts (4 sand or artificial turf, 50'x80' each, including buffer space)	Sports Field
NE_L8	Farm Master Plan Fields/Pastures	Landscape
NE_T1	Regents Drive Improvements	Transportation
NE_T2	Pedestrian/Bicycle Improvements at Stadium Drive East	Transportation
NE_T3	Paint Branch Drive Improvements	Transportation
NE_T4	Bicycle Connection and Pedestrian Bridge at A.V. Williams Building, North	Transportation
NW_L1	School of Public Health Building Garden	Landscape
NW_L2	Hagerstown Woods Improvements	Landscape
NW_L4	Multi-Sport Recreation Field (220' x 150', artificial turf)	Sports Field
NW_L5	Volleyball and/or Basketball Courts	Sports Field
OP_L1	Greenmead Drive Entry Enhancements	Landscape
OP_L2	Campus Tree Nursery	Landscape
OP_L3	Avrum Gudelsky Veterinary Center Retention Pond Improvements	Landscape
OP_L4	Wetland Marsh Nature Walk and Perimeter Landscape Improvements University Boulevard	Landscape
OP_T1	Bicycle Trail Improvements	Transportation
S_L1	Lehigh Road Gateway and Pedestrian Enhancements	Landscape & Transportation
S_T1	East-West Pedestrian Boulevard Improvements	Transportation
W_L2	Garden Walk at Clarice Smith Performing Arts Center and Perimeter Landscape Improvements University Boulevard	Landscape
W_L3	Garden of Peace and Friendship - Phase 2	Landscape
W_L4	Botanical Garden and Landscape Improvements - Phase 1	Landscape
W_L5	Arboretum Outreach Center Landscape Improvements	Landscape
W_L6	Field Turf Extension and Site Improvements	Sports Field
W_L7	Botanical Garden - Phase 2	Landscape
W_T3	Stadium Drive and Golf Course Gateway Enhancements	Landscape & Transportation
W_T5	Stadium and Farm Drives Enhancements	Transportation

Planned Demolitions July 2017 - December 2020			
Building #	Building	District	GSF
020	Motorcycle Storage Building	E	416
210	Plant Operations & Maintenance Storage	E	499
239	Leonardtwn Apartment	E	12,582
240	Leonardtwn Apartment	E	10,152
241	Leonardtwn Apartment	E	6,291
332	Anacostia Building	N	1,787
430	Metzerott House (4103)	OP	1,965
431	Metzerott House (4109)	OP	1,869
803	Adelphi Road Office Annex (8701 Adelphi Rd)	OP	4,818
811	Knox Road Building (4218 Knox Road)	S	3,332
Total			43,711

Planned Demolitions January 2021 - December 2030			
Building #	Building	District	GSF
003	Service Building	E	84,029
006	Plant Operations & Maintenance Building	E	20,165
011	Building 011	E	9,081
045	Instructional Television Building	NE	3,082
051	Worcester Hall	S	33,541
054	Preinkert Field House	S	28,237
065	Carroll Hall	S	26,470
067	Satellite Central Utilities Building (SCUB 2)	S	13,664
069	Wicomico Hall	S	27,684
070	Caroline Hall	S	26,959
085	Institute For Physical Sciences & Technology	NE	28,534
087	Central Animal Research Facility	NE	7,163
091	Chemistry Building - Wing 1	NE	115,350
093	Engineering Annex	NE	10,888
102	Agriculture Shed	NE	2,322
103	Animal Science Service Building	NE	1,397
116	Temporary Building (South Of 201)	E	1,440
119	Poultry Barn	NE	1,026
124	Grounds Material And Equipment Building	N	7,372
158	Varsity Sports Team House	W	22,857
201	Leonardtwn Office Building	E	10,018
204	Temporary Building (West Of 201)	E	869
207	Temporary Building (West Of 201)	E	733
212	Plant Operations & Maintenance Shop 3	GC	2,114

Planned Demolitions January 2021 - December 2030			
Building #	Building	District	GSF
227	Jull Hall	NE	17,574
238	Leonardtwn Apartment	E	10,152
242	Leonardtwn Apartment	E	10,152
243	Leonardtwn Apartment	E	5,076
244	Leonardtwn Apartment	E	13,452
245	Leonardtwn Apartment	E	13,452
246	Leonardtwn Apartment	E	13,452
247	Leonardtwn Apartment	E	13,452
248	Leonardtwn Apartment	E	13,452
249	Leonardtwn Apartment	E	13,452
250	Leonardtwn Community Center	E	3,660
327	Grounds Herbicide/ Pesticide Storage Building	N	235
328	Grounds Operations And Maintenance Building	N	3,157
344	Environmental Service Facility	N	7,752
369	Maryland Stadium Maintenance Building	W	3,319
381	Center For Young Children	NW	10,645
383	Paint Branch Building	OP	39,067
813	Artemesia Building	OP	47,224
814	Cypress Building	OP	8,994
Total			732,714
Total for both periods			776,425

Appendix B | Campus Map



2017 - 2030 FACILITIES MASTER PLAN UPDATE

- Existing
- Planning Period
July 2017 - December 2020
- Planning Period
January 2021 - December 2030
- Long Range "building edge setback"
- Building Renovation
July 2017 - December 2020
- Building Renovation
January 2021 - December 2030





UNIVERSITY OF
MARYLAND

Facilities Master Plan
2017 - 2030 Update

For a detailed look at the Facilities Master Plan 2011 - 2030 go to
www.facilities.umd.edu/masterplan