

## University System of Maryland



# Facilities Master Plan Guidelines

Revised 8/5/13; 12/5/13; 1/11/17; 3/3/17; 8/9/18; 7/23/19  
USM Office of Capital Planning

A Facilities Master Plan (FMP) establishes a framework for orderly growth and development of capital improvements on campus. It should be responsive to an institution's current and projected needs and sufficiently flexible to accommodate changes that can be expected to occur. The plan describes the optimal, desired development of available land, consistent with the approved mission statement of the institution. Plans should look inward, as well as outward and address those issues that benefit the campus and its surroundings. A serious environmental commitment to the concept of reducing greenhouse gas emissions and combating climate change in development and operations, for instance, should be an ongoing theme.

Sometimes the plan is expressed in terms of future improvement of undeveloped or to-be-redeveloped property, as in the case of UMBC's 1960s plan that still guides the campus today. Most often, however, plans are used to help tie a variety of existing buildings and building sites together into a reasonable, cohesive whole, and then plot a logical course for future development. This is best illustrated in the plans for the urban campuses of UMB and UB, though ongoing planning of most other Maryland institutions reflects this approach as well.

Regardless of its purpose or scope, the FMP is a working document that will require consistent evaluation and periodic updates. Furthermore, though the goals of the plan should have temporal components to encourage their achievement, the plan is not tied to a commitment to a specific timetable for the funding or completion of projects. That occurs as part of the capital budgeting process.

### **Planning Process and Components**

An FMP includes information about the institution's role and mission and how these relate to facilities requirements. This involves an analysis of space and program needs to implement the approved mission; a description of existing land and facilities, including a description of the possible new or revised use of existing land and facilities; projections of needs over the next 10 to 20 years; and assumptions and criteria to meet identified needs.

An FMP should be consistent with the mission of the institution as has been approved by the Board of Regents and consistent with the State Plan for Higher Education. Planners should consolidate the goals and objectives of Plan Maryland, the Maryland Green Building Program, as well as all applicable Board policies. Excerpts and links regarding each of these are included here.

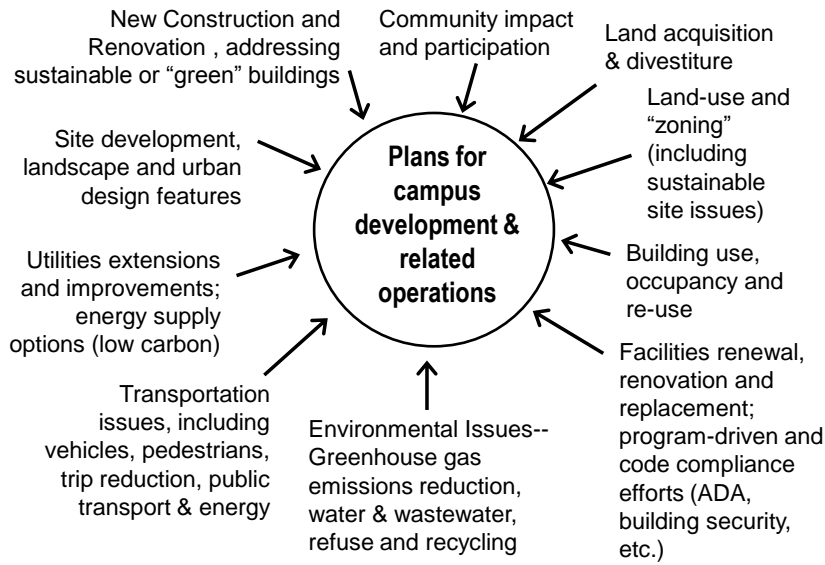


Broad participation is critical. In many ways, the process by which the plan was developed will be as important to its success as the quality of the goals and objectives of the plan itself. Institutions are encouraged to build substantive relationships with their neighboring communities and governmental entities (counties, municipalities, Federal installations, etc.).

The format and components of the FMP vary by institution, due to the unique nature of mission, physical condition, natural environment, community setting, etc. The Board does not require a particular format be followed. In general, however, all master plans should follow a similar framework in terms of the kinds of topics covered:

- Statement of the institution’s role and mission
- Assessment and analysis of existing land, facilities, space utilization, energy use and operations, including an emissions inventory
- Planning assumptions and guidelines for development based on
  - Comprehensive program of stakeholder participation;
  - Goals and objectives expressed by these stakeholders; and
  - A commitment to address the long-range challenge of climate change
- Specific plans in major component areas (*see diagram*)
- An implementation strategy, including:
  - A summary of individual projects
  - Recommended sequencing of projects without specific time constraints
  - Emissions reduction measures and carbon offset options
  - A plan for continued community participation through implementation
  - A method and schedule for updating and improving the plan

### Typical Plan Components

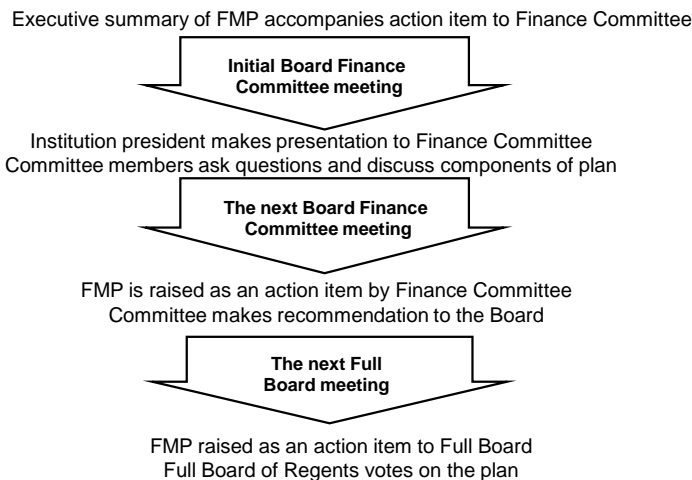


### The Approval Process

The State requires an FMP as part of its capital budgeting and facilities program approval processes. In order for a project to be approved in the State’s capital budget, for instance, it must be part of an approved master plan. The State does not approve master plans at USM institutions, as that is the role of the Board of Regents. The Department of Budget & Management does, however, review and comment on the plans.

Each FMP is reviewed by the Chancellor and USM Office staff for consistency with the requirements for facilities master plans, and with the System-wide goals and objectives established by the Board of Regents. An Executive Summary of the FMP is then submitted to the Board for their consideration and approval (*see diagram below and Details in Appendix*). Once approved, copies are submitted to State agencies for their reference and records.

### Board Approval Process



## Implementation and Updating the FMP

The Facilities Master Plan represents a comprehensive, strategic approach for implementing the University's future capital program and is used to direct the development of facilities and inform campus operations. The plan and process may be modified as necessitated by the actual conditions of each project as they are programmed for funding. Furthermore, approval of the plan by the Regents does not imply approval of capital funding nor commit the Board to a particular funding stream or timetable. These items will be reviewed through the capital and operating budget processes.

Board policy requires that the FMP be evaluated and updated on a periodic basis, including when substantial changes to the institution's mission statement have taken place, or at least every five years.

## Board Focus Areas

The Board of Regents has asked that institutions include metrics related to demographics—specifically population data and their impact on enrollment demand—in their planning discussion.

The Board has also asked that institutions provide focused attention to building condition (renewal needs) and land acquisition (e.g., land banking for future development). While most institutions already include these components in their plans, care should be taken in addressing real property acquisition (in particular) so that the ability of the campus to leverage the most competitive price for adjacent parcels is not compromised by a public discussion of interest.



In addition to the traditional land use focus of the plan, the Board of Regents has asked that Facilities Master Plans address a handful of critical areas, including: (1) Community Participation in the process; (2) Consistency with the State development plan “A Better Maryland”; (3) and Environmental Sustainability, including mitigation/adaptation/resiliency, as well as ties to the campus hazard mitigation plan.

## **Board policy on Community Notification of Capital Projects**

*(VIII-10.40, Approved by the Board of Regents, June 18, 2010)*

I. Each USM Institution is charged by the Board of Regents with developing its campus facilities in a way that best accommodates the needs of students, faculty and staff, while pursuing plans that benefit all stakeholders in the success of the campus—including the local neighborhoods and municipalities on its borders.

II. During the planning phase of a new structure or the substantial exterior modification of an existing structure on land owned by a USM Institution, if the new structure or modification of the structure is adjacent to or abutting land that is privately owned, the institution shall make reasonable efforts to provide notice of the proposed new structure or modification of the structure either electronically or by first-class mail to:

A. All adjoining property owners or occupants, including owners or occupants whose properties lie directly across a street, alley, or stream, if the new or modified structure is visible from the adjoining property; and

B. All Local Governments located within one mile of the project site.

### **A Better Maryland**

<http://abetter.maryland.gov/>

State agencies and institutions are to lead by example in this implementation by utilizing plan objectives as they pursue development opportunities. The following constitute a useful checklist of the preferred qualities of a sustainable development plan, including:

1. **Quality of Life and Sustainability:**

A high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment.

2. **Public Participation:**

Citizens are active partners in the planning and implementation of community initiatives and are Sensitive to their responsibilities in achieving community goals.

3. **Growth Areas:**

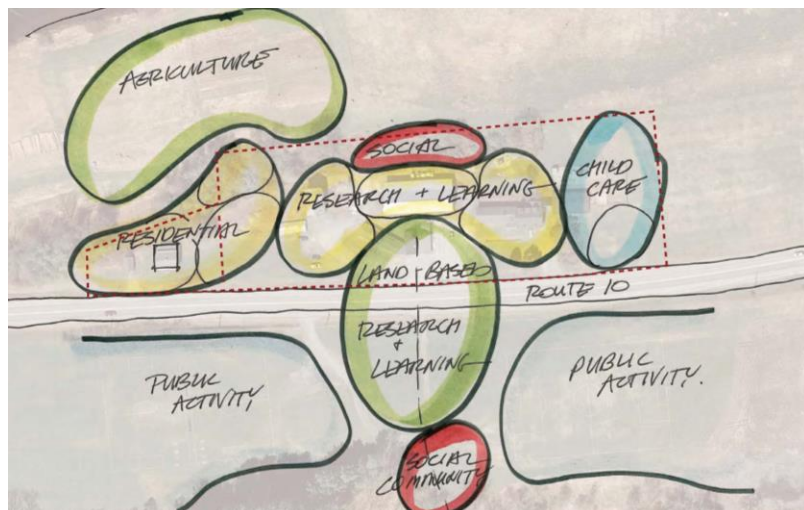
Growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers.

4. **Community Design:**

Compact, mixed-use, walkable design consistent with existing community character and located near available or planned transit options is encouraged to ensure efficient use of land and transportation resources and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural, and archeological resources.

5. **Infrastructure:**

Growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and



environmentally sustainable manner;

**6. Transportation:**

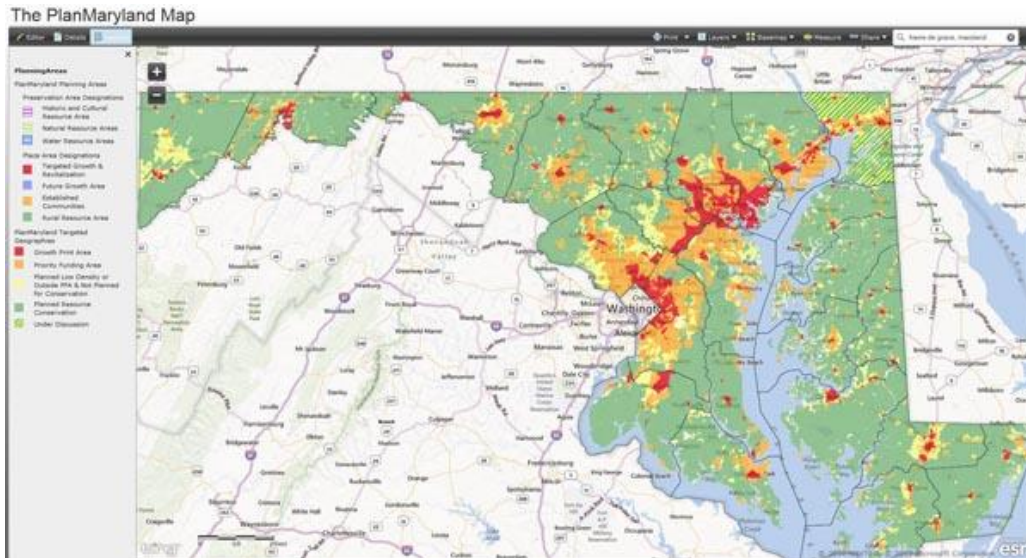
A well-maintained, multimodal transportation system facilitates the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers;

**7. Housing:**

A range of housing densities, types, and sizes provides residential options for citizens of all ages and incomes;

**8. Economic Development:**

Economic development and natural resource-based businesses that promote employment opportunities for all income levels within the capacity of the State's natural resources, public services, and public facilities are encouraged;



**9. Environmental Protection:**

Land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources;

**10. Resource Conservation:**

Waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved;

**11. Stewardship:**

Government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection; and

**12. Implementation:**

Strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, state, and interstate levels.

## Environmental Sustainability

While the System doesn't provide a checklist of Climate-related components, the following are examples tied to USGBC/LEED requirements and the ACUPCC implementation guide. A commitment to Climate Change Mitigation can be physically accommodated within the plan, even if the specific requirements of the commitment may not yet have been formally adopted by the institution. The institution's Climate Action Plan should be interwoven into the development plan. Here are some ideas:

### Introduction

- Definition of and commitment to "GHG Reduction" and "Sustainable Building"

### Campus Development

- Zoning of uses to encourage pedestrian activity and minimize vehicle activity
- Building placement and orientation to maximize LEED point opportunities
- Effective use of materials and massing to minimize physical footprint of buildings and reduce impervious surfaces, mitigate the urban "heat island" effect, etc.
- Liberal plantings and forest replacement (emphasize natural materials, native plants)
- Clustering of similar functions and providing remote areas for solar and wind power generating equipment, biomass energy production, composting, waste management, recycling facilities, etc. (Note community concerns as well.)



- Providing facilities for alternative transportation (e.g., mass transit stops, rail beds and crossings, bridges over busy highways, etc.—also see discussion of bicycle accommodations below.)
- Providing facilities for refueling of vehicles operating on alternative or mixed fuels

### Buildings and Facilities

- Specific mention of LEED goals and what that means for new buildings and the retrofit of existing buildings (see USGBC publications for more details)
- Materials (e.g., certified recycled/recyclable, locally produced, low emitting, etc.) and mechanical/electrical equipment standards (e.g., Energy Star)
- Roof configuration to accommodate solar panels (present or future)
- Provide more on-campus housing and amenities for students and (perhaps) faculty and staff to minimize commuting and off-campus trips during the day
- Provisions for controlling runoff and sediment
- Landscaping that minimizes use of water and fertilizers

### Utilities and Infrastructure

- Energy conservation standards
- Clustering of facilities to minimize loss of energy during long runs
- Accommodations for mixed and alternative energy sources (present or future)
- Electronic backbone to support distance ed. and teleworking

### Bicycle Accommodations

State law requires specific attention to bicycle transportation in each campus plan. What follows is the text of § 21-1008 “Bicycle and pedestrian accommodations” from the Maryland Transportation Code.

*(a) ... each public institution of higher education and State employment facility shall provide reasonable accommodations necessary for bicycle access, including parking for bicycles.*

*(b) When a public institution of higher education revises its facility master plan, the public institution of higher education shall address bicycle and pedestrian transportation circulation:*

- (1) Between the institution and the communities adjacent to the institution; and*
- (2) Within the campus of the institution.*

*(c) The facility master plan shall include measures that the institution proposes to:*

- (1) Incorporate bikeways and pedestrian facilities on the campus; and*
- (2) Promote biking and walking on the campus.*

### Adaptation and Resiliency

Related to the sustainability issues noted above, it’s important that institutions consider climate adaptation and steps they’re taking toward improving the resiliency of the institution related to climate and other disruptive events. The FMP should support these goals as well.

The organization *Second Nature* provides some important components and criteria on the topic of resilience, as well as questions and examples to guide thinking and planning. Please note the following from their web page:

*Resilience is the ability of a system or community to survive disruption and to anticipate, adapt, and flourish in the face of change. Resilience doesn’t come with a specific roadmap and a universal set of steps to follow. However, the resilience of any campus or community will be based its own unique set of characteristics, future goals, existing capacity and strengths, and current and future vulnerabilities. Part of developing increased resilience is undertaking the social engagement, assessment, and planning process itself.*

*The most successful campus resilience plans will be those that fully embrace the catalytic nature of resilience assessment and planning, and that incorporate diversity and inclusiveness throughout the process. Resilience touches on all aspects of a campus and surrounding community. To help campuses think comprehensively about resilience, Second Nature breaks it down into five dimensions:*

- *Infrastructure*
- *Ecosystem Services*
- *Economic*
- *Health and Wellness*
- *Social Equity and Governance*



*These dimensions are not mutually exclusive. They are meant to encourage a holistic assessment of resilience and adaptive capacity. Considering each of these dimensions in the context of climate change will help campuses and communities develop a resilience plan that addresses the entire system. Resilience is not just about survival and bouncing back from disruptions; it is about being able to thrive.*

### **Hazard Mitigation Plans**

Maryland is no stranger to natural hazards. While earthquakes aren't quite as common as hurricanes, floods and winter storms, nobody will argue the value in being prepared. All institutions have "Emergency Preparedness" plans that describe how the campus would respond in the event of a disaster. The Board has encouraged preparation of such plans in the past.

Some institutions have also created formal hazard mitigation plans that may have been endorsed by the Board of Regents. They describe what your campus is doing (or could do) to prevent or reduce the impact from an event. Typically these include campus policies (or guidelines) for building placement, construction standards, barriers and drainage, communications systems, etc. All institutions are encouraged to consider preparation of such plans.

It is important to include ties to these plans, where appropriate, in your master plan document; and, conversely, to be sure the goals and plan components of the FMP support those of the hazard mitigation plan. In terms of the master plan document, the following questions are useful:

- Does the FMP clearly identify natural hazard areas?
- Do the policies of the FMP discourage development within natural hazard areas?
- Does the FMP provide adequate space for expected future growth in areas located outside of natural hazard areas?
- Does the FMP recommend hazard mitigation projects (and related improvements like storm water remediation) as identified by the Hazard Mitigation Plan?

---

For More Information, see: <http://www.usmd.edu/regents/bylaws/SectionVIII/VIII1000.html>

**APPENDIX**  
**MASTER PLAN SUBMISSION INSTRUCTIONS**  
**THE TWO-STEP PROCESS FOR APPROVAL BY THE BOARD OF REGENTS**

**STEP 1: PRESENTATION AND DISCUSSION**

Finance Committee meeting (in the month listed on the schedule; please confirm date with the System Office/OCP)--President's PowerPoint presentation, for information, discussion and feedback by Committee members

As early as they are available (but at least 6 weeks prior to the 1st Finance Committee meeting date) please provide 3 copies (or a .pdf electronic version) of the entire plan (including an Executive Summary) to the USM Office of Capital Planning. If a paper copy, the plan may be unbound (clipped or in a binder, etc.) in penultimate draft form, to allow changes. Final binding style is a campus decision.

At least 24 calendar days prior to the 1st Finance Committee meeting, please provide 5 printed copies of the Executive Summary only and a draft Board Approval item (a Word file and a sample copy are available from the USM Office of Capital Planning). Please revise the sample, including similar information from your document, send it along electronically, and the System Office will review, edit and get it out to the Board.

At least 14 days prior to the 1st Finance Committee meeting, please provide 60 bound paper copies of the Executive Summary ONLY. The document should include at least one color map of your illustrative campus plan bound in the document (may be a fold out, if needed). These will be sent to members of the Board and other recipients with Finance Committee and full Board meeting materials. ALSO, please forward a .pdf copy AND post the executive summary online at your institution's web page for access by the public.

The day of the 1st Finance Committee meeting, please bring 3 copies of the full FMP document and 5 extra copies of the Executive Summary package, in case they are requested. In addition, please bring 30 printed copies of the presentation slides for Board members and others in attendance. (Color or black-and-white copies are acceptable—per your institutional preference.) Important: Please also e-mail electronic copies of the Executive Summary and the presentation to the USM Office of Capital Planning.

Full Board Meeting following the 1st Finance Committee meeting--General discussion. No presentation. The item will be reviewed as part of the report from the Finance Committee chair.

**STEP 2: ACTION**

Finance Committee meeting (the next meeting, typically one to two months later)--Vote by Committee to recommend approval of the FMP by the Full Board. No presentation needed, though it would be good to have the institution's Admin VP and/or planning director present to respond to any questions that may arise. The USM Office will amend the previous Board item for this purpose.

The day of the 2nd Finance Committee meeting: No additional advance copies are required. We recommend, however, bringing a few copies of the Executive Summary and 3 printed copies of the final plan to make available, if requested. The format and binding for the final version of the master plan are your choice. Please note: If there are substantive changes to the plan between steps 1 and 2, 30 copies of the revised Executive Summary should be made available to the Office of Capital Planning at least 14 days prior to the meeting for inclusion in the Finance and Board meeting packages. Otherwise, no new copies are required.

Full Board Meeting following the 2nd Finance Committee meeting--Vote to approve the FMP based on Committee's recommendation. No presentation. The item will be reviewed as part of the report from the Finance Committee chair.