



Campus Physical Master Plan

University of Massachusetts Amherst

August 1993

Campus Physical Master Plan

August 1993



Jack Ahern, Mark Lindhult, John Mullin
Department of Landscape Architecture and Regional Planning

Beverly Nuckles
Associate Vice Chancellor for Physical Planning

Steve Goodwin, Chair
Campus Physical Planning Committee



Foreword

In the fall of 1992, the Campus Physical Planning Committee of the Faculty Senate sponsored a series of workshops to discuss major issues related to the development of a Campus Physical Master Plan. Each workshop was attended by a diverse cross section of the University community as well as by participants from the surrounding communities. The first four sessions followed the same topics that now unify the Campus Physical Master Plan; transportation, circulation, and parking; campus land use and infrastructure; campus open space and recreation; economic and community development. While the topics had been established in advance, the format for discussion was deliberately left flexible. What resulted was a dialogue among members of the University community as to the needs of the physical campus for the future. For many of the participants it proved to be a most refreshing dialogue. There was often disagreement on specific issues, but there were several areas around which a strong consensus developed. The most salient of these continues to be the importance of the physical structure of the campus to the operation and successful completion of the mission of the University.

The fifth and final forum was a strategic planning session. The goal was to discuss approaches for implementing a concerted effort towards physical master planning. Rather than getting caught up in small details about which many of the participants might reasonably disagree, the focus was on steps that could be taken to insure an integrated and unified approach to physical master planning on the Amherst campus. It was clear that while there are some things that can be done immediately, many of the needs of the campus can only be addressed by a planning process that looks at five, ten, and even fifteen year horizons.

The Campus Physical Master Plan was produced by The Office of Space Management and the Department of Landscape Architecture and Regional Planning to begin to address these needs. The University community should view the Campus Physical Master Plan not as the end of the process but as a document that provides a basis for an ongoing master planning process. It is the hope of the Campus Physical Planning Committee that realizing the importance of the physical planning process, the University community will maintain an active dialogue about the physical needs of the campus and that the Campus Physical Master Plan will help to serve as the catalyst for continuing this dialogue well into the future.

Steve Goodwin
Chair, Campus Physical Planning Committee



Table of Contents

Foreword	iii
Acknowledgments	vii
Executive Summary	1
The Campus Today	1
The Intent	1
The Vision	1
Goals	2
Objectives	2
The Concept	2
Summary Recommendations	4
Transportation, Circulation, and Parking	4
Campus Land Use and Infrastructure	4
Campus Open Space and Recreation	5
Economic and Community Development	5
Chapter 1. Introduction	7
Purpose	7
Planning Assumptions	7
Method	8
Analysis Phase	9
Planning Phase	10
Concept Development Phase	10
Future Phases	10
Chapter 2. Campus History	11
Beginnings	11
Growth as an Agricultural College	12
Post-War Expansion	13
Chapter 3. The Campus Today	15
A Strategic Perspective	15
Introduction	15
Position in the Region	15
The Amherst and Hadley Communities	16
The Amherst Campus	16
Academic	17
Campus Analysis and Assessment	18
Natural Features	18
Transportation, Circulation and Parking	20
Vehicular Circulation	20

Pedestrian Circulation	21
Public Transportation	22
Parking	22
Campus Land Use and Infrastructure	24
Campus Open Space and Recreation	27
Open Spaces	27
Recreation	27
Economic and Community Development	28
Community Development	28
Campus Image Survey	29
Chapter 4. The Campus Tomorrow	31
A Vision for the Future	31
Trends	31
The Vision	31
Goals	32
Objectives	32
The Concept	33
Infill	33
Areas of Excellence	34
Circulation and Parking	35
Vehicular Circulation	35
Parking	35
Pedestrian Circulation	35
Service Circulation	36
Bicycle Circulation	36
Campus Land Use and Infrastructure	37
Buildings	37
Utilities	37
Facility Needs Identified in Planning Workshops	38
Campus Open Space and Recreation	39
Campus Landscape and Open Space	39
Recreation and Athletics	39
Remove Negative Icons	39
The Frank A. Waugh Arboretum	40
Economic Development and Community Planning	41
Economic Development	42
Community Planning	43
Campus Development Issues	44
Community Development Issues	52
Chapter 5. Strategic Planning Recommendations	53
Circulation and Parking	53
Campus Land Use and Infrastructure	54
Campus Open Space and Recreation	54
Economic and Community Development	55
Photo and Illustration Credits	56

Acknowledgments

The authors are grateful for the support and effort contributed to this plan from:

Students and Staff, Department of Landscape Architecture and Regional Planning

Martha Lyon	Heather Baldner	John Maximuk
Troy Sanders	Jenny Chang	Dale Morrow
	Richard Conary	Lauren Standish
	Robert Cmarik	Andrea Tramontana
	Kim Erslev	Pradnya Walhekar
	Lori Kissinger	Echo Wang
	The Senior Landscape Architecture Design Studio	

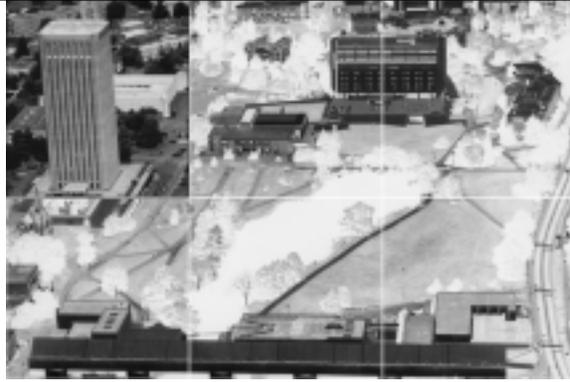
Campus Physical Planning Committee

Mario DePillis, College of Arts and Sciences, History
Michael Harris, President, Student Government Association
Ron Labbe, College of Food and Natural Resources, Food Science
Bill Manning, College of Food and Natural Resources, Plant Pathology
Ed Mientka, Environmental Health and Safety
Jesse Ortiz, Public Health
Richard Stromgren, College of Arts and Sciences, Communications
George Urch, Education
Peter Wozniak, Director of Physical Plant

Participants of the Campus Physical Planning Workshops, Fall 1992

Marilyn Blaustein, IPR	Don Maia, Amherst Police
Jestena Boughton, LARP	William Manning, Plant Pathology
Lynn Braddock, Campus Parking	Dan Martin, Faculty Senate
Jim Cahill, Physical Plant	Paul McOwen, Computer Science
Dean Cardasis, LARP	Anne Miller, Housing Services
Jaymie Chernoff, Univ. Relations	Bob Mitchell, Amherst Planning Dir.
Jim Cope, PVPC	Peter Murray, LARP Student
Wayne Cournoyer, UR&D	Diana Noble, UMass Transit
Duane Cromack, Engineering	Ken O'Brien, Phys. Education/Athl.
Elizabeth Dale, Univ. Conference Svcs.	Richard O'Brien, Chancellor
Niraj Dangoria, Physical Plant	Ellen Pader, LARP
Hugh Davis, CRM	Todd Richardson, LARP
Beth Denis, Space Management	Timm Rinehart, Admissions
Nicholas Dines, LARP	James Russ, LARP Student
Murray Eisenberg, Math/Statistics	Ellen Savulis, Dept. of Anthropology
John Findley, Housing Services	Jim Shaw, CASIAC
Glen Gordon, Provost	Brijesh Shrivastan, LARP Student
David Grader, Public Safety	Debra Smith, Univ. Conference Svcs.
Sarah Hamilton, New Students Prog.	Eileen Stewart, Dean of Students Office
Michael Harris, Student	Ronald Story, Univ. Presidents Office
Robert Helgesen, Dean CFNR	Jackie Sullivan, Univ. of Mass. Found.
Larry Holmes, Public Safety	Jonathan Tucker, Amherst Plng. Dept.
Jan Klausner-Wise, Rep. Story's Office	Joe Volpe, LARP
Connie Kruger, Amherst Plng. Dept.	Sid Wolfe, LARP
Bill Lambert, Physical Plant	Frank Wright, Phys. Education/Athl.
Phil Lamothe, LARP Student	Gordon Wyse, Biology Department
Mike Lucey, Housing Services	Yubing Zhou, LARP Student
Jim MacRostie, Fine Arts Center	

Special thanks to Chancellor Richard O'Brien, Dean Robert Helgesen, and Professor John Mullin for funding the printing of this report and Wayne Cournoyer, Director of Publications, and Donna Meisse for graphic design assistance.



Executive Summary

The Campus Today

The University of Massachusetts at Amherst is the oldest, largest and most comprehensive University in the Commonwealth's five campus system. The University has experienced numerous periods of growth and change as it has evolved over the last 130 years. As the 21st century approaches, the University is in the midst of another period of growth and change.

Unlike the growth of the 1960's and 1970's, the changes foreseen in this strategic master plan are not in response to increasing enrollments. There is a need for facilities that respond to existing deficiencies, to provide modern laboratories and scientific equipment, to meet the demands of a changing student body, and to house a growing library. In addition, several older buildings are dysfunctional and must be renovated or demolished.

The Intent

Planning for the physical improvement and development of the entire campus last occurred in the 1960's. The strategic plan outlined in this document looks to the year 2010 and assumes that the campus population will return to its 1988 total of 26,500 students. The intent is to look strategically at the major systems that govern the physical form of the campus: Circulation and Parking, Campus Land Use, Open Space and Recreation, and Economic and Community Development. The plan is intended to serve as a framework to guide the expansion and improvement of the campus.

The Vision

The University of Massachusetts has achieved national and international recognition for its teaching and research programs. Yet even with its setting in the Pioneer Valley, the campus itself suffers from a lack of completeness. Improving the physical condition of the campus is not a frivolous undertaking. Recent research shows that 65% of incoming students make a decision about a campus based upon its physical appearance and resources. The campus should be a place that students aspire to live, a place of beauty. Providing an inspiring setting will help provide students with pleasant memories of their experiences on campus and can only improve alumni relations by instilling pride for their institution.

The vision is to create a campus that is a five star attraction known by

"No major departure, no new and consequential venture, is made without a context and a vision."

*Franklin Patterson
The Making of a College*

each and every resident of the Commonwealth. It will be a garden in the valley that attracts the top students and best faculty, a place where the quest for knowledge is enhanced by the quality of life. The campus will be a regional destination that attracts visitors from around New England and conferences from around the country. We have an opportunity to realize this vision.

Goals

1. Develop a campus image that identifies the University of Massachusetts at Amherst as the Commonwealth's flagship University, the leading public University in New England with a strong national and international reputation, and that complements the University's setting in the Connecticut River Valley.
2. Create an environment that supports the mission of the University, provides a high quality of living for students, and inspires excellence in teaching, research and professional service allowing the University to be an economic engine for the Commonwealth.
3. Integrate new facilities and resources within the campus core in a way that improves the existing patterns of land use, circulation, parking and open space.

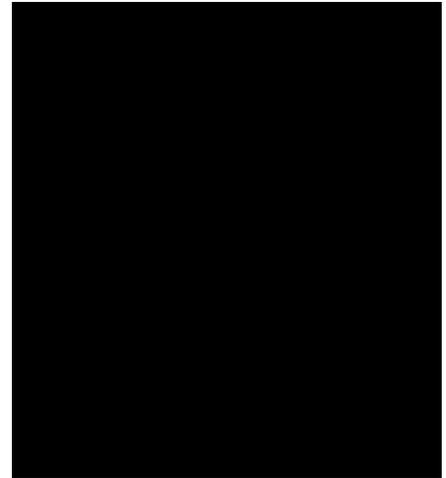
Objectives

- Establish a clear sense of entry and arrival to the campus.
- Extend the concept of the campus as a pedestrian environment.
- Preserve and enhance the quality of the landscape surrounding the Campus Pond.
- Limit the land area devoted to parking in the campus core.
- Maintain the campus core for academic development and locate non-academic uses on the perimeter.
- Remove negative campus icons such as the fence around the library.
- Study the establishment of private retail/commercial activities on campus.
- Identify areas of campus suitable for development.
- Revive the campus arboretum.

The Concept

The purpose of the strategic plan is to address needs for the major systems on campus: Circulation and Parking, Campus Land Use, Open Space and Recreation, and Economic and Community Development.

The major concept for improving the physical character of the campus is infill, the integration of new academic facilities and resources within the campus core. The plan is intended to establish a framework for the campus defined by a

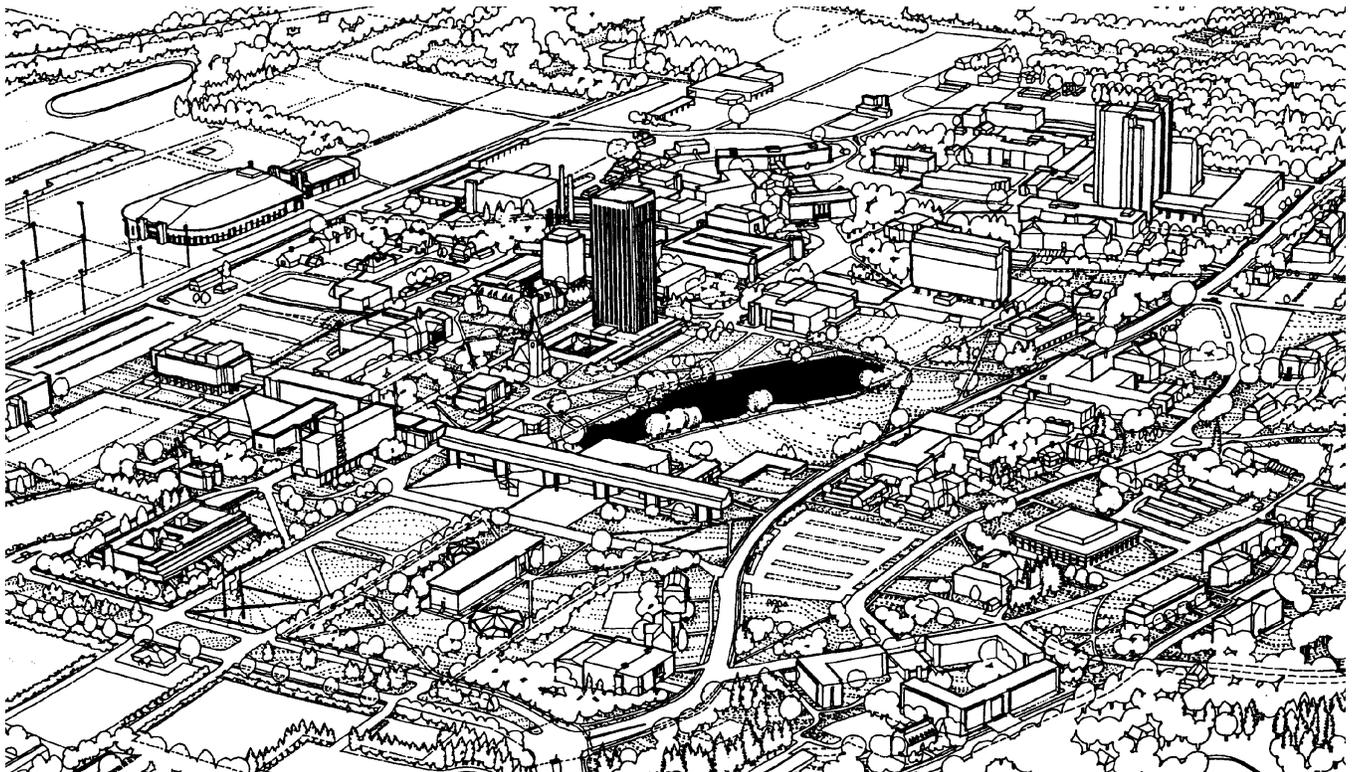


strong system of pedestrian walkways, open space, and a clear order of perimeter streets.

- Maintains the rural setting by filling vacant spaces within the core rather than spreading development to the outer limits of campus.
- Improves the character of the campus core with infill, by creating more human spaces (both indoors and outside), and improving the scale of pedestrian corridors and nodes.
- Upgrades and completes the core's edges, specifically the western edge, so that the campus welcomes visitors at all its entrances.
- Creates an improved sense of orientation for campus visitors, residents, students, and staff by defining clear corridors and activity nodes.
- Reduces travel time for students and faculty between buildings.
- Centralizes infrastructure, thereby reducing costs.

Another concept is to concentrate initial campus improvements within “areas of excellence”. The premise is that the entire campus image can be improved by making a few select areas showpieces. This will have a more lasting impact than trying to bring the whole campus up to a level of mediocrity. The first designated space should be the area around the campus pond. Surveys of students, staff, and faculty revealed that this area is recognized as the most important outdoor space on campus, yet is also one of the places identified as needing improvement.

The campus pond should be designated as the first area of excellence.



Summary Recommendations

Transportation, Circulation, and Parking

In the short term, by 1995, several key actions should be implemented. First, service and delivery vehicles must be eliminated from pedestrian paths in the campus core. A parking management plan should be completed which addresses the needs of the overall campus as well as the particular needs of the Mullins Center. To support alternative transportation, and reduce campus traffic and parking demands, a connection should be made to the five college bike trail via University Drive.

In the mid term, by 2000, Governor's Drive should be realigned to complete the perimeter road system and to better define the campus core. Stockbridge Road should be closed to through traffic to accommodate a major pedestrian crossing and to integrate the renovations of the Durfee Gardens, presently under construction. All non-handicapped parking should be removed from the campus core to improve the campus image, safety and comfort of pedestrians. The University, with the Pioneer Valley Transit Authority, should develop and implement a comprehensive, multi-modal transportation plan to comply with clean air act regulations and to reduce private vehicle use on campus. Park-and-Ride facilities should be developed in neighboring communities.

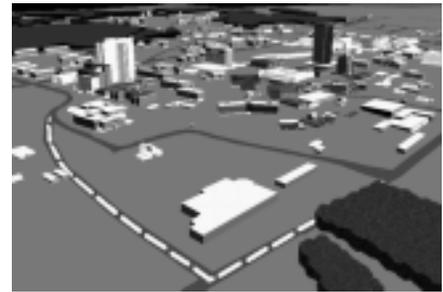
In the long term, a multimodal transportation center should be developed on campus to facilitate bus, train, automobile and bicycle transportation.

Campus Land Use and Infrastructure

In the short term, by 1995, the University should adopt a policy that future development be guided by a strong infill concept within the campus core to strengthen the campus' overall physical organization, movement systems and landscape open spaces. A policy should be adopted to locate academic expansion adjacent to the existing Colleges and Schools. In support of the infill concept, a comprehensive facilities audit of buildings in need of major repair or slated for renovation, and a utility-infrastructure master plan should be conducted. Working groups should be established to explore development programs and options in the defined study areas. A policy should be adopted that non-academic and economic development-related activities be located outside the campus core. The major open lands at the north of the campus should be reserved for long term future needs. A housing strategy should be developed to diversify offerings for students to be competitive with peer institutions.

In the mid term, by 2000, academic development programs should be programmed and prioritized. A capital campaign should be implemented to support major construction projects including the Alumni Center, Chapel renovation and Multicultural Center. The construction of the co-generation power plant should be complete.

In the long term, planning should be completed for continued expansion and development for all University lands, including the reserved lands to the north.



The realignment of Governors Drive will provide a defined edge to the campus and remedy circulation problems in the Northwest corner of the campus.



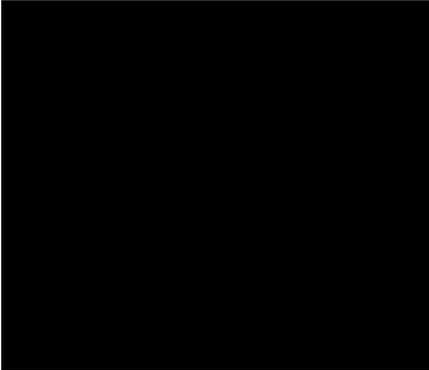
There are nine potential areas for major infill development identified in this plan totalling 52 acres. This would allow an additional 2.25 million gross square feet of building space to be added to the campus. This is a 45% increase over the existing 5 million gross square feet of classroom, administrative and research space.

Campus Open Space and Recreation

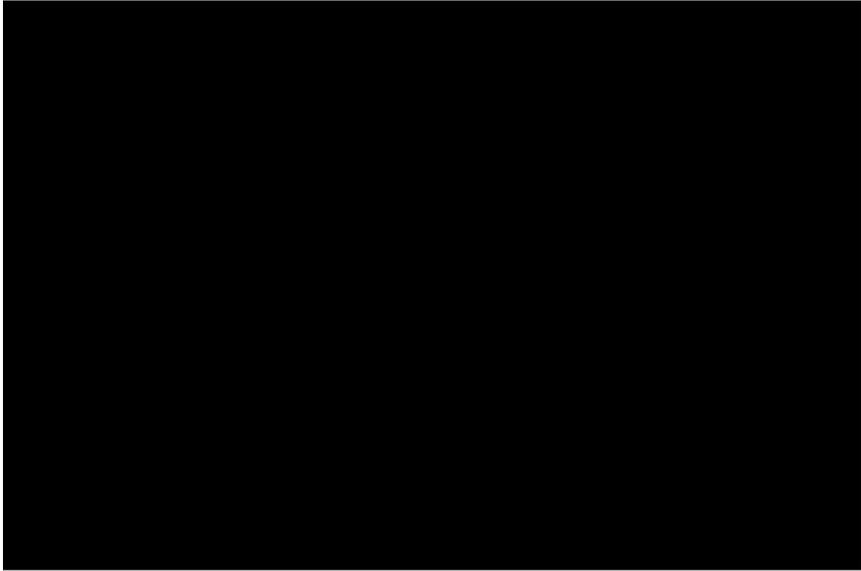
In the short term, by 1995, specific actions should be implemented to remove the campus' negative icons including the unfilled reflecting pools in front of the Fine Arts Center and the chain link fence surrounding the University Library. The landscape of the campus pond area should be renovated as the first "area of excellence". Planning should be completed to develop a master plan for the University Arboretum and a campus landscape master plan, including design guidelines for all landscape elements. A policy should be adopted that the Boyden intramural fields be permanently reserved for recreational use to preserve the University's western "front lawn".

In the mid term, by 2000, develop a recreational and athletic facilities master plan that ensures diverse recreational opportunities and facilities for all residential areas and varsity sports. As part of this plan, running and skiing trails should be established throughout the campus. The existing design for the Student Union Plaza should be implemented as a key gathering spot and in support of the campus pond area as an "area of excellence". Stockbridge Road should be designated as a pedestrian corridor and closed to traffic. Capital planning for implementing the campus arboretum and campus landscape plans should be launched.

In the long term, by 2010, the campus arboretum visitors center and display



A combination of both active and passive recreational opportunities is required.



The landscape of the campus pond area should be renovated as the first "area of excellence."

gardens should be constructed.

Economic and Community Development

In the short term, by 1995, a study should be conducted to consider establishing commercial and retail facilities on campus, including private and quasi-private research laboratories. As part of this study, the Southwest Residential Area should be considered as a location for commercial development and private investment in conjunction with the campus efforts to provide additional support services. A policy should be adopted stating that all areas of the campus edge that are not presently developed should be planned in a manner that is

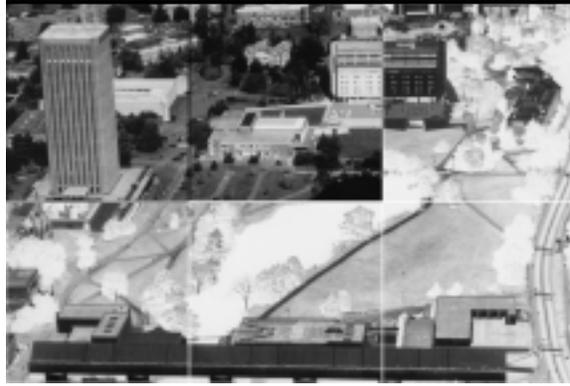
compatible with existing adjacent community uses.

In the mid term, by 2000, the University should have a working policy in place to promote on and off-campus linkages with research and industrial development interests. A strategy should be developed to relocate the existing sororities and fraternities from North Pleasant Street to Sorority-Fraternity Park. A plan should then be developed, in cooperation with the Town of Amherst, for the redevelopment of the North Pleasant Street corridor between the campus and the downtown.

In the long term, the University should develop an efficient apparatus for technology transfer that facilitates collaboration and exchange of University research and public service into the private sector, locally, regionally, statewide, and internationally.

1

CHAPTER



Introduction

Purpose

Comprehensive planning for the physical improvement and development of the entire campus last occurred in the 1960's when Sasaki, Dawson, and DeMay produced a master plan. This strategic plan provides both the structure and the impetus to proceed with future planning for the campus over the long term.

Surveys and workshops undertaken as part of this planning process revealed that the students, faculty, staff, and surrounding community members perceive the campus as needing an improved physical image — one that complements the beauty and unique qualities of its extraordinary setting.

In meeting the needs driven by regional, national and international trends, the University is poised to realize excellence in many realms - instruction, research, service, and economic development. Change brings opportunity. There is a need to assess the physical environment of the campus in order to capitalize on this opportunity.

Planning Assumptions

This plan is based on several assumptions made about the campus projecting to the year 2010. These assumptions may be summarized as follows:

- **Demographics.** It is assumed that the campus population will return to its 1988 figures reflecting the university at its all-time high of 26,500 students. Students enrolled in the four-year undergraduate program will continue to constitute 60% of the population, with 20% enrolled in advanced degree programs at the Master's and Doctorate levels. The remaining populations are 5% faculty and 15% staff. National trends indicate that the typical undergraduate student profile will shift from the current average age of between 18-22 years to an older one and the overall population will become more multicultural. The University expects to accommodate these new "non-traditional" students both on and off-campus through (1) diversified housing arrangements, (2) teleconferencing and digital communication and (3) expanded continuing education. Additionally, trends show the private sector

becoming increasingly involved in research and teaching across the campus by the year 2010.

- **Land Area.** Currently, the Amherst campus consists of 1,381 acres of land, 33% in Hadley, and 67% in Amherst. The plan assumes that the land area will not significantly increase or decrease by the year 2010. Seventy percent of this acreage remains as open space, with the largest expanse located to the northeast and northwest of the campus core. Tremendous opportunities exist for the University to site new development within the current land holdings, while, at the same time, protecting culturally significant and environmentally sensitive open spaces.

- **Transportation.** Students, faculty, and staff currently utilize a number of transportation modes which connect the campus with neighboring cities and towns, the most prominent being the Pioneer Valley Transit Authority, free to all riders. The plan assumes that this service will continue and will expand to meet future rider demands, and that the campus will connect with other local and regional transportation routes, including the regional bikeway system, currently under construction. Additionally, there is a federal mandate to improve air quality, through multimodal and alternative transportation means.

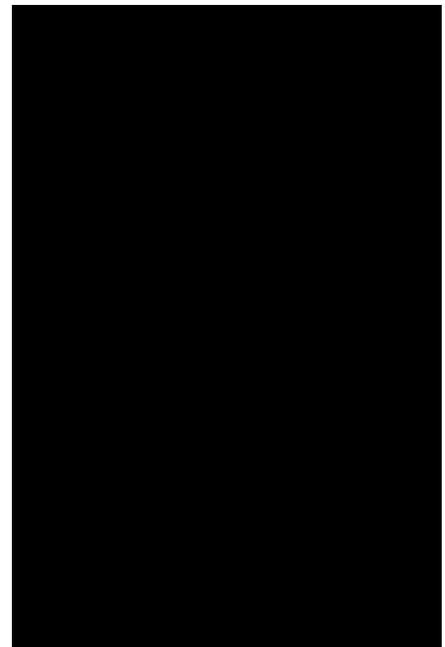
- **Identity and Image.** The University will continue to value its many historic buildings, sites and trees, for educational purposes, as well as aesthetic amenities. Through infill and new development in and around these historic elements, planners believe the campus will achieve an image compatible with, and supportive of, the teaching, research and public service missions of the University. Additionally, the campus landscape will serve to connect the University's myriad architectural styles and construction materials with the surrounding environment.

The plan embraces the University's mission as adopted by its Board of Trustees in December, 1992 shown in Table 1.

Method

The Office of the Chancellor at the University of Massachusetts at Amherst initiated the master planning process in 1992 under the direction of Beverly Nuckles, Associate Vice Chancellor for Physical Planning. A planning and design team from the Department of Landscape Architecture and Regional Planning, lead by Professors Mark Lindhult and Jack Ahern, provided data management and planning expertise. The Campus Physical Planning Committee was the coordinating body. Because the plan is making recommendations for the entire campus, representatives from a broad cross-section of administrative and academic departments along with key officials from surrounding communities were involved as active participants.

Through the workshops, surveys and discussions with university administrators, faculty, students, and community members, the physical quality of the campus was a central issue. The central idea was that the University of



Participants at one of the workshop sessions.



Mission Statement

University of Massachusetts at Amherst

As the system's flagship campus, Amherst draws students from throughout the Commonwealth, the nation and the world, providing a broad undergraduate curriculum with over 100 majors, and more than 50 doctoral programs. It will continue as a Carnegie Research I university and maintain its presence in Division I intercollegiate sports; it will continue its efforts to achieve a median ranking among the American Association of Research Libraries; and obtain membership in the American Association of Universities.

The mission of the Amherst campus reflects the University's mission in the following ways:

- **Access.** Providing undergraduate education for all qualified students (meeting their full financial need) in a broad range of areas found in leading public Research I universities, as well as in graduate programs leading to doctoral or other appropriate terminal degrees in most of these fields.
- **Excellence.** Maintaining a range of academic offerings comparable in quality to those offered at AAU universities; maintaining national leadership in such areas as creative writing, computer science, engineering, polymer science, linguistics, astronomy, sports management, and hotel management; and striving for national leadership in other academic areas.
- **Innovation.** Creating new knowledge with a broad program of distinctive research; and disseminating this knowledge through publications, public presentations and professional conferences.
- **Economic Development and Global Competitiveness.** Supporting the economic development of the Commonwealth by providing assistance to small business and industry; encouraging technology transfer; undertaking research in areas of economic importance; and providing the language instruction and other tools necessary for participation in the global economy.
- **Public Service.** Providing public service by meeting formal land-grant responsibilities; serving agriculture; offering assistance to regional cities and towns; and engaging in research and outreach in such areas as public health, environmental safety, transportation, public finance, and education.
- **Quality of Life.** Developing the human and cultural quality of life for the region through a comprehensive arts program; assisting public social agencies to provide improved services to the citizens of the Commonwealth; and promoting the multicultural awareness and tolerance of diversity essential to a pluralistic, transnational society.

Table 1. The University's mission as adopted by the Board of Trustees in 1992

Massachusetts campus richly deserves a physical character equal to its prominence within the state and region. This vision has been adopted as the master plan's goal.

Analysis Phase

Over the course of the spring of 1992, planners analyzed the campus's existing natural and cultural conditions by creating a digital database using computer-aided-design (Auto CAD) software. All of the campus' major natural features were mapped - topography, wetlands, soils, slopes -along with significant cultural conditions -campus landuse, off-campus landuse, off-campus zoning, infrastructure, circulation, historic buildings, parking. An assessment of

the significant factors allowed planners to determine the sites on campus which could best accommodate future development and to obtain other useful information.

Planning Phase

Planning occurred over the course of the summer and fall of 1992. The Department of Landscape Architecture and Regional Planning, Office of Physical Planning and Campus Physical Planning Committee hosted a series of workshops open to the campus and community. Participants discussed what they believed to be the physical campus's strengths and weaknesses, and raised other relevant issues. These points and issues steered the concept phase.

Concept Development Phase

To arrive at a concept, planners considered the campus's strengths and weaknesses, its ability to accommodate new development and the major issues raised during the workshop sessions. Many of the weaknesses centered around the inadequacy of facilities and a lack of clear physical organization. The digital database showed several areas on campus which might accommodate new infill development. Planners concluded that infill development will address the need for more and better facilities, and, at the same time enhance the organization of the campus.

Future Phases

A series of recommendations for short, mid, and long term actions for implementing the concept followed. Planners articulated a series of areas in need of further in-depth planning and/or policy development including parking, landscape design and management, the campus arboretum, and facility auditing.

2

CHAPTER



Campus History

In 1864, six Amherst farms totalling 310 acres and nestled within the Connecticut River Valley were purchased for the site of the new Massachusetts Agricultural College. The Morrill Act of 1862, passed by the Lincoln Administration enabled its birth by requiring all states to provide public lands for Land Grant Colleges. The Act was to promote the “liberal and practical education of the industrial classes for the benefit of Agricultural & Mechanic Arts.” From 1863 to 1867, when the college opened its doors, much planning and debate ensued. The College’s philosophy stated that the land devoted to farming was more important than the buildings.

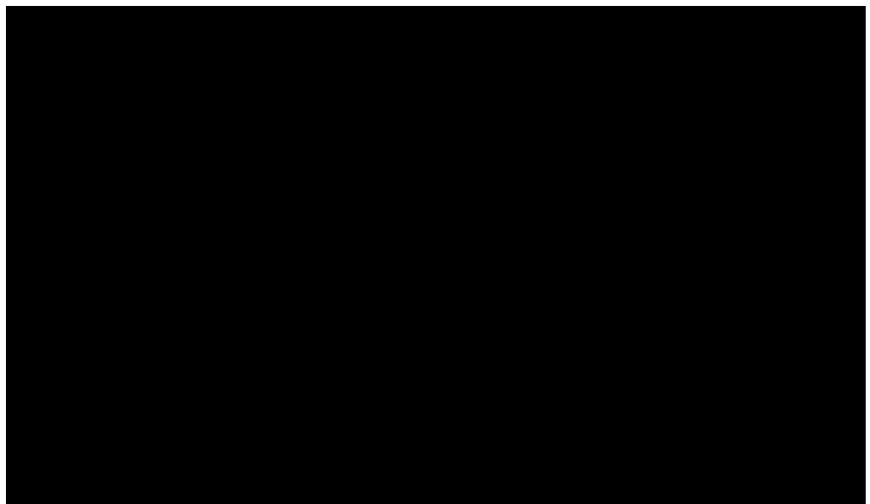
Beginnings

Master planning for the campus began almost immediately. Calvert Vaux and Joseph Richards were employed to design a grand college building. However, it was inevitable that the first controversy arose over the location of the first buildings. The Board of Trustees asked Frederick Law Olmsted, noted landscape architect of Central Park to submit a proposal for the building site in 1866. Instead of siting the building as asked, Olmsted recommended that the college as a whole be located on the Eastern slope and be modeled after a typical New England village. The Board of Trustees viewed Olmsted’s proposal as an

“The individuality of an agricultural college lies in its agricultural setting, not in its buildings, which is a mere piece of apparel to be fitted to the requirements of the agricultural trunk.”

Frederick Law Olmsted, 1866

In 1870 the campus was organized into an academic cluster with agricultural plots on the perimeter.



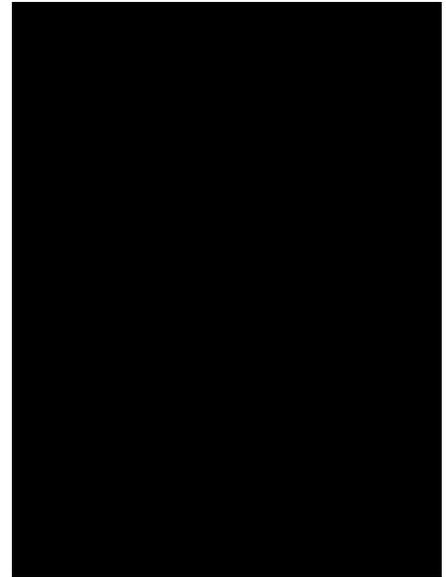
improper response to the assignment, fired him, and thus proceeded to site the college on the Western plateau.

Growth as an Agricultural College

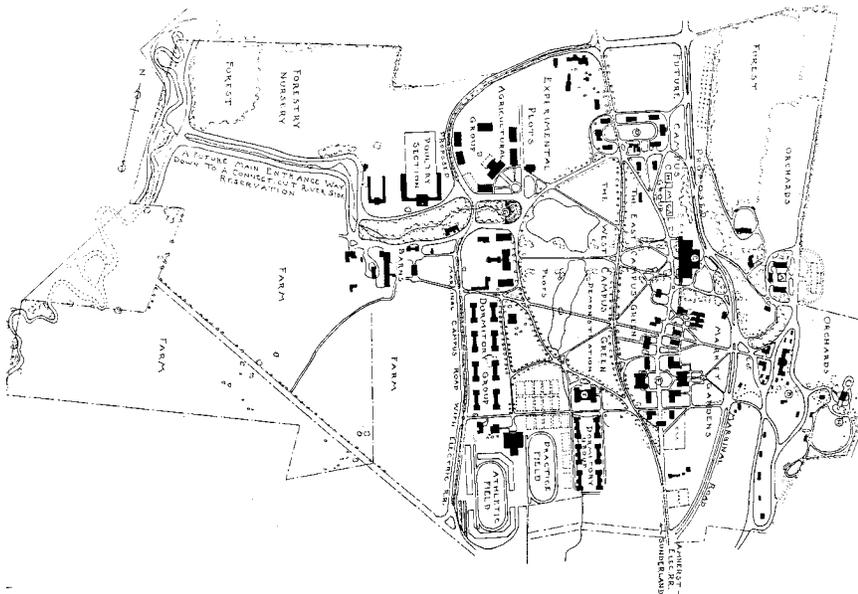
Many of the early dramatic changes on campus can be attributed to the vision of William Smith Clark during his presidency of 1867-1879. Clark traveled to Hokkaido, Japan, established an agricultural university, and established a cross-cultural relationship still in existence through Massachusetts' Sister State association with Hokkaido. Clark brought many plant species from his travels to Japan back to the United States. His devotion to developing the grounds brought marked change to the campus landscape. Specimen trees planted during Clark's reign still flourish on the campus today in the University's arboretum. Through Clark's foresight, the campus environment reflected a rural image and provided an idyllic backdrop for its growth in the late 1800's and the early 1900's.

President Clark established the first director of buildings and grounds for the University. In 1902 landscape gardening professor Frank Waugh assumed the position. Like Olmsted, Waugh harbored a strong commitment to agricultural education. He contended that the college buildings should blend with, and not dominate, the agricultural landscape. F.I. Cooper, Warren H. Manning along with Waugh were the first of many planners to organize the campus into groups, to recognize the potential growth of the college and the influence the automobile would have on campus development. Although the Cooper, Manning and Waugh reports were not fully implemented, they did forecast the college's imminent growth and served as inspiration for future campus plans.

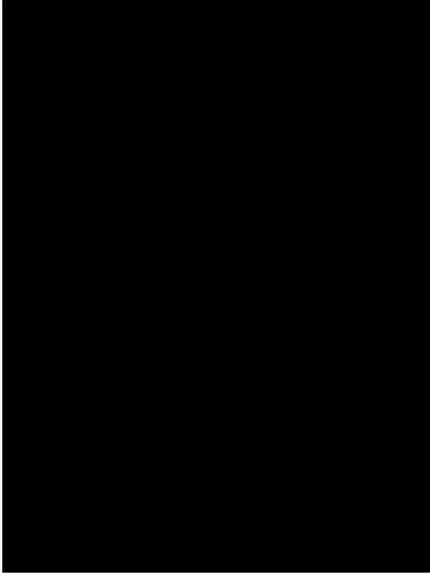
In 1931, the Massachusetts Agricultural College became the Massachusetts State College. A broader curriculum to include the liberal arts combined with an increasing student population brought a change of educational standards. Frank Waugh, offering a distinct perspective as a loyal enthusiast for the preservation of the rural character on campus presented a plan in 1932 which reflected the changing academic program. The early landscape plantings reinforcing Waugh's vision created a picturesque campus with shade trees and majestic elms lining



President Clark's legacy is still felt today.



The 1910 plan of the campus by Warren Manning. Note his division of the campus into major levels - Upland, Midland and Lowland based upon the natural features. Trolley lines ran on North Pleasant Street and Lincoln Avenue - what is now the major pedestrian route from Whitmore to the University Library.



“This environment is to be prized as one of the institution’s greatest assets; and to whatever trend our plans may turn the future development of this physical plant, we must insist that all shall be in harmony with these surroundings.”
 Frank Waugh, 1908

central roadways. Frank Waugh even suggested the campus meadow be maintained by a flock of sheep, adding to the idyllic quality of campus.

Post-War Expansion

At the close of World War II, demand for college education skyrocketed. In 1947, the Massachusetts State College expanded to become the University of Massachusetts and entered an era of expanded scope, broader curriculum and a larger physical plant. The University engaged in its first modern planning stage with the consulting firm of Schurcliff, Schurcliff and Merrill in 1953. The Shurcliff plan was to accommodate 10,000 students, cluster facilities, provide peripheral parking and circulate automobiles around the campus core.

Projected enrollment grew more rapidly than predicted and Schurcliff’s plan became outdated only seven years later. A new plan was necessary. The firm of Sasaki, Dawson and De May was hired in 1961 to complete a master plan for the University. Sasaki addressed several aspects of the physical plant development with a major focus on changing from a vehicular to a pedestrian oriented campus. The existing interior circulation system was reordered to a peripheral system. The widening of Massachusetts Avenue, and the accompanying allée of London Plane trees, typifies the roadway design of the Sasaki proposal. The Sasaki plan provided the framework which moved the campus away from its agricultural roots into its current distinctly more urban context.

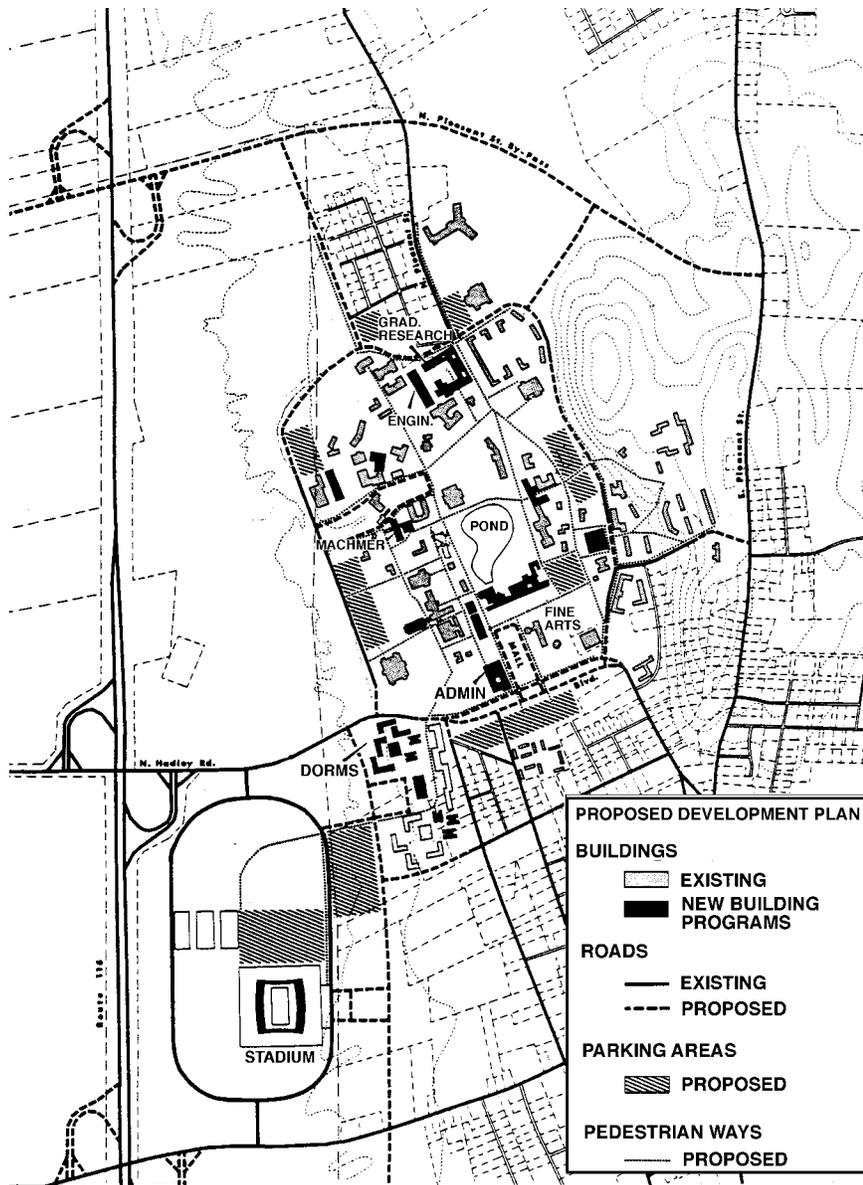
Other fundamental changes occurred in the 1960’s and early 1970’s on campus. The construction of Southwest Residential Area, The Campus Center, Graduate Research Center, Fine Arts Center and University Library altered the scale and spatial organization throughout the campus. Although these buildings are currently strong symbols on today’s campus, they overpower the once picturesque rural campus.

Following this architectural boom, campus planning and building

Prior to the Sasaki Plan the campus form was based primarily on internal roads.



construction slowed down until 1990's with the construction of the Mullins Memorial Center and the Conti Polymer Science Building. Student enrollment has hovered around 20,000 to 25,000 per year with budget constraints in the late 1980's and early 1990's reducing student enrollment as well as the University's staff. Today campus planning is centered around maintaining existing facilities.

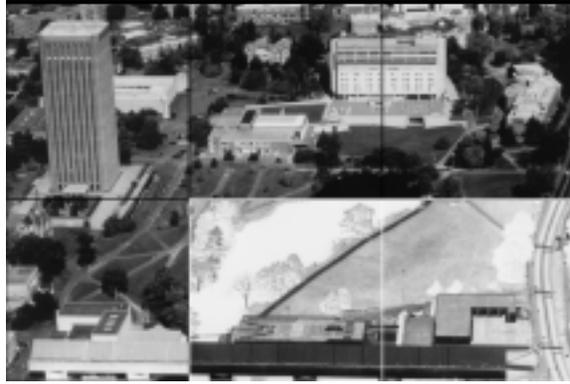


The Sasaki Plan provided the framework for much of the current campus form.

“Much of what is aesthetically pleasing on a campus cannot be controlled in a master plan. Architecture, use of materials and treatment of landscape demand a much finer scale of thinking and design than is possible in a general development plan. A master plan does establish a design framework within which the architect and landscape architect can detail their work.”
Hideo Sasaki, 1962

3

CHAPTER



The Campus Today

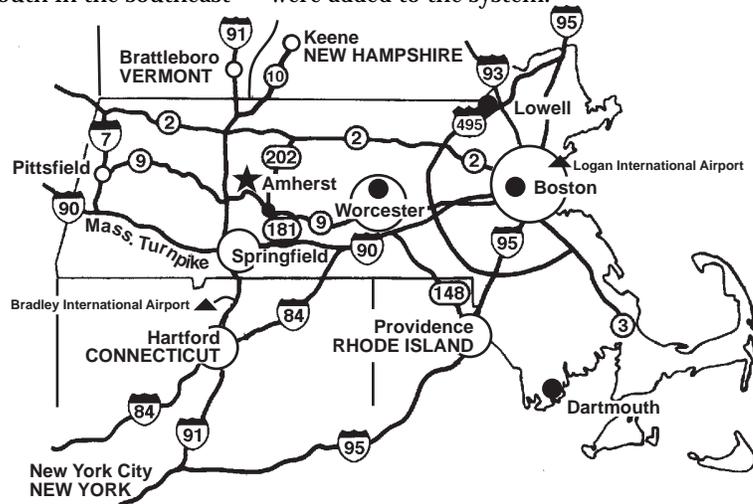
A Strategic Perspective

Introduction

In preparing this strategic plan, an extensive program of research and data collection was undertaken to document the physical assets of the campus. Workshops with the campus community were held to articulate the character, image and issues confronting the University. The research identified the major “systems” to be addressed by the plan and in workshop sessions: (1) transportation, circulation, and parking, (2) campus land use, (3) open space and recreation, and (4) community planning and economic development issues.

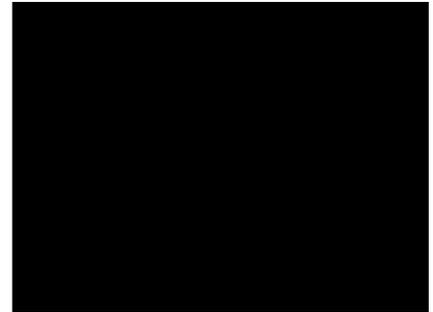
Position in the Region

The Amherst campus was established in 1863 as the Massachusetts Agricultural College. From that beginning, a five-campus university system has evolved, yet Amherst has always served as the system’s flagship campus. In 1965, the University’s second campus opened 100 miles from Amherst, on the waterfront at Columbia Point, known as the University of Massachusetts at Boston. Five years later, a medical center and teaching hospital – the University of Massachusetts Medical Center – formed at Worcester. Most recently, two additional campuses — Lowell in the northeastern part of the state and Dartmouth in the southeast — were added to the system.



The Amherst and Hadley Communities

The University's "Amherst" campus actually occupies land in both Amherst and Hadley. The town of Amherst borders the University's north, east and south edges, and the town of Hadley lies to the west. During the academic year, Amherst's population is 35,228. This total includes a large number of students who generally leave town for the summer months, producing a dramatic drop in population. The campus lands are zoned "Educational" by the Town of Amherst reflecting the campus' tax exempt status. The university relies on town facilities for its source of water, solid waste disposal, and waste water treatment. The town of Hadley, with a population of 4,381 is largely an agricultural community with a major commercial strip along State Route 9 from the Coolidge Bridge on the Connecticut River to the Amherst town line. University lands in the town of Hadley are zoned industrial for all lands east of Route 116 and Agricultural/Residential for the Hadley Farm, located west of Route 116.

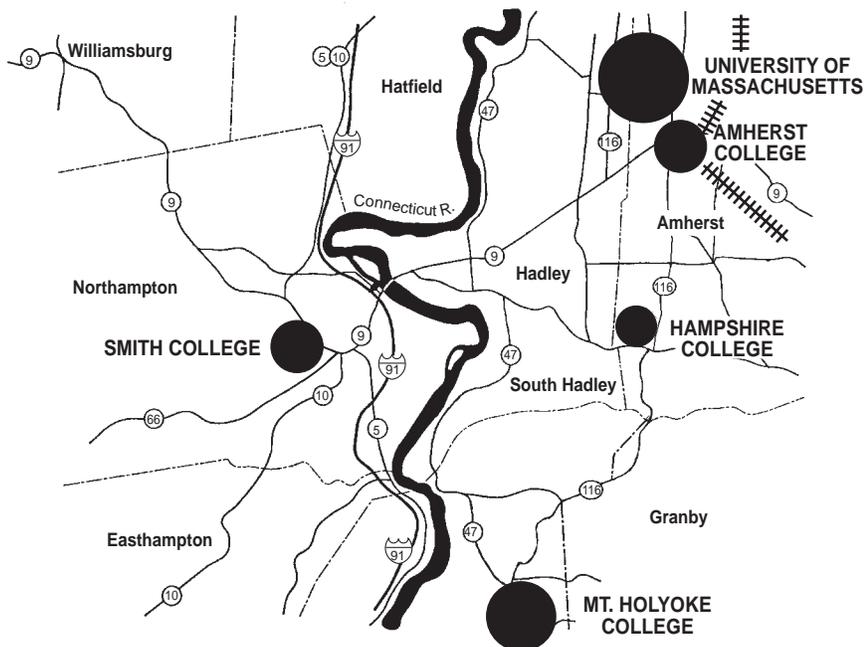


The campus lies in the scenic Connecticut River Valley.

The Amherst Campus

The Amherst campus lies in the Connecticut River Valley of western Massachusetts on 1,381 acres of former agricultural land. The Holyoke Range, the Berkshire and Green Mountain foothills, and the Pelham Hills surround the town of Amherst, and provide a spectacular backdrop to the University. Adjacent expanses of farmland serve as reminders of the school's beginnings as a land grant college and define its rural image.

The campus stands within relatively short driving distances from New York City, Providence, Rhode Island, Boston, and other major northeastern cities. Boston, 100 miles to the east, and New York, 175 miles to the south, are accessible to the Amherst campus via major northeastern interstate highways. (I-90 and I-91/95 respectively).



Academic

The campus' location near four other colleges serves as a vital asset. Neighboring Amherst, Hampshire, Mount Holyoke, and Smith Colleges combine resources with the University through a unique Five-College System. Students attending any of the five colleges may enroll in courses and utilize the libraries at any or all of the schools. Faculty and staff participate in exchanges, collaborations and joint teaching and research.

The Amherst campus is academically organized into nine schools and colleges. The physical development of the core of the campus has resulted in the clustering of the various schools and colleges into identifiable geographic areas within the core. There are a few exceptions where colleges have been split among multiple locations as a result of growth dependent on existing facilities. Notable in this category are the College of Food and Natural Resources and the School of Education.

The colleges and schools on the Amherst campus include the following academic units: Natural Sciences and Mathematics, Humanities and Fine Arts, Social and Behavioral Sciences, Food and Natural Resources, Management, Engineering, Public Health, Nursing, and Education.



The University campus contains 1381 acres of land in Amherst and Hadley.

Campus Analysis and Assessment

Natural Features

The campus extends from the top of a glacial drumlin in the east (Orchard Hill) to a glacial lake bed in the west (former Lake Hitchcock). Slopes across the campus reflect these land forms. Along the western slope of Orchard Hill, grades average 10% and higher. From the base of Orchard Hill extending westward, slopes level off to 10% and less. A series of parallel north-south terraces step down to the western campus which sits on the bed of former glacial Lake Hitchcock. On this lake bed area, grades range between 0 and 5%. Based on slopes alone, the campus' western half appears most desirable for building construction. (See Severe Constraints map)

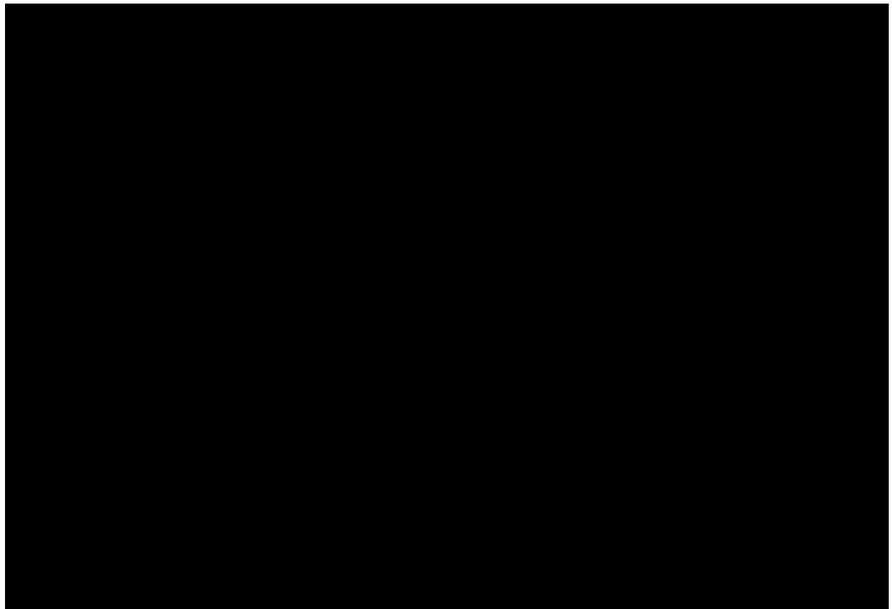
Soils throughout the campus correspond to the physiography. At Orchard Hill, sandy glacial tills predominate, with rock outcroppings appearing sporadically. The former lake bed area contains soils composed largely of sands, silts and clays. Most of the soils across the campus pose moderate limitations to building construction. The sloping, rocky soils around Orchard Hill, and the wetlands along the campus' western edge present the most severe restrictions to development.

Surface water and wetlands cover 8% of the University's land. The Mill River at the campus's western edge, and the Wildwood Brook at the campus's northern end, account for most of this wet area. Massachusetts State Law protects wetlands from alteration or filling.

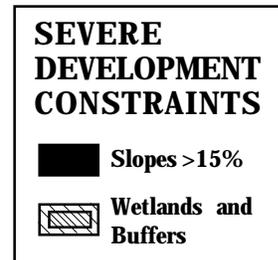
The campus contains a diversity of vegetation. Mature forests with heights of over 40 feet cover the summit and western slopes of Orchard Hill. Larger forested areas abutting the Sylvan dormitory complex and McGuirk Stadium serve as screens, and provide valuable habitats for wildlife. Pin oak, linden, and plane tree alleés mark the major campus roads — University Drive, Massachusetts Avenue, Commonwealth Avenue, and Haigus Mall. Specimen trees, many dating over 100 years, grow throughout the campus core. Grand beech, sweetgum, and tulip trees stand as jewels of the campus-wide arboretum.

A composite of the campus' physical features shows that the lands best suited to future development are located in the campus core, where land has been drained and leveled during the University's development. The severely constrained lands which have wetlands are located mostly at the north and west of the campus. Steep slopes appear along the western slopes of Orchard Hill. These areas present the most difficulty to building and road construction.

The Orchard Hill Area, in the upper right, contains most of the steep slopes on campus.



Constraint Map



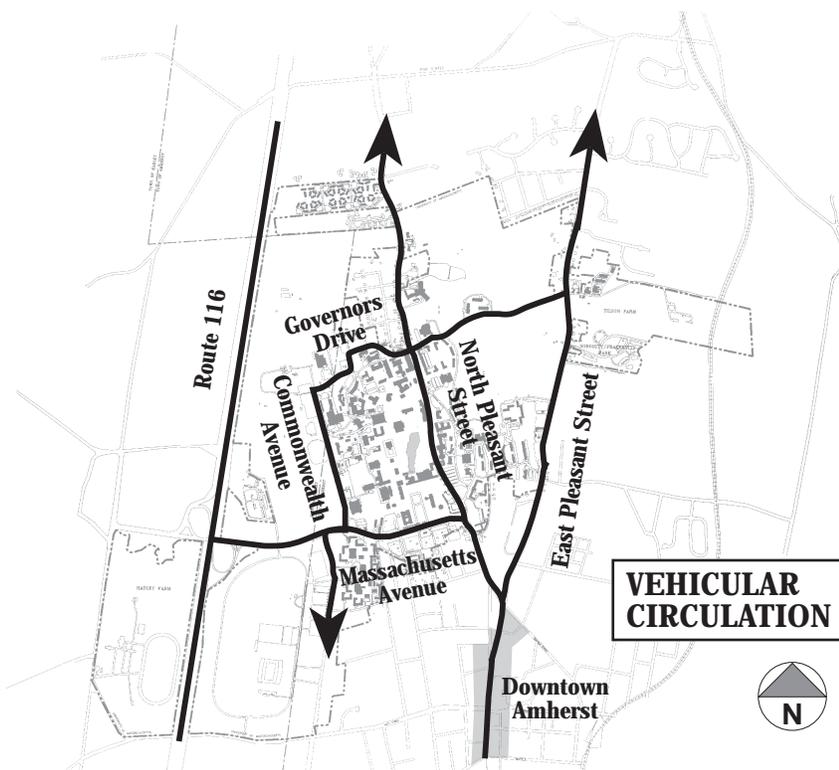
Transportation, Circulation and Parking

Transportation has historically been a major influence on the planning at the University. The early plan by Frank Waugh featured an internal loop road system to service the rural agricultural campus. The Sasaki Plan of 1961 was based on a “superblock” concept in which the campus core was defined by a major perimeter road, with service and cul-de-sac roads penetrating the loop. Since the Sasaki plan, linkages with local, regional, and state road systems have become a major part of campus planning.

Vehicular Circulation

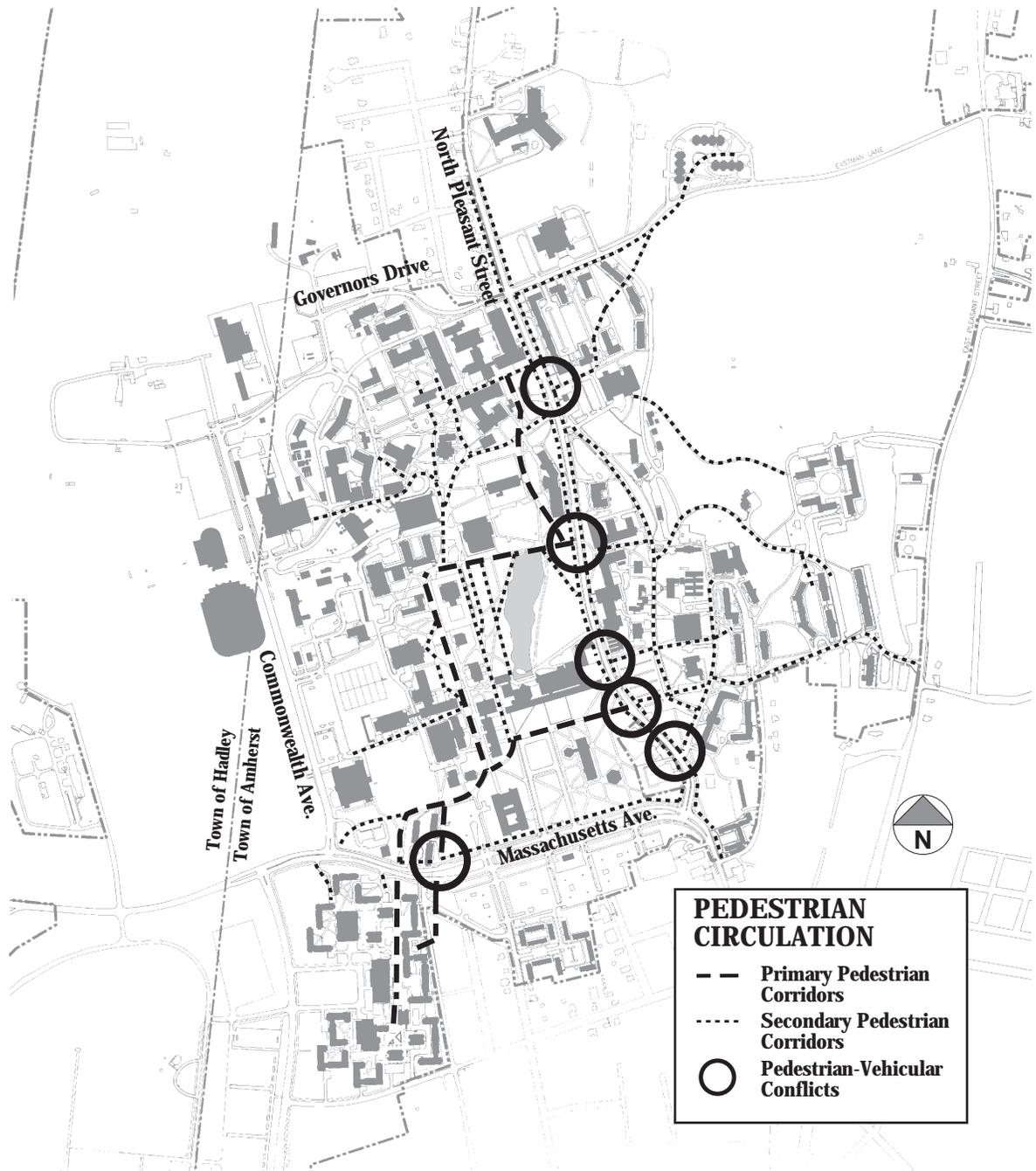
The campus has four major entrance points: University Drive and North Pleasant Street from the south, North Pleasant Street from the North, and Massachusetts Avenue from the west. There are three secondary entrance points: Clark Hill Road and Eastman Lane from the east, and Lincoln Avenue from the neighborhood which borders the southern core development.

A perimeter road system defines the academic core and provides efficient circulation for private vehicles and busses. The Governor’s Drive section of this loop road, which represents the northern quadrant of the perimeter road, is the only section which is poorly aligned and not in a permanent condition. The North Pleasant Street corridor, which bisects the campus core from north to south, represents a major source of pedestrian/vehicular conflict. The conflicts are most intense in the vicinity of the many bus stops located on North Pleasant Street. Service and delivery vehicles using campus walkways are a perennial problem within the campus core. This is a safety as well as an aesthetic issue as these vehicles cause unsightly compacted ruts along many campus walks.



Pedestrian Circulation

Within the campus core, major pedestrian corridors run north-south on the eastern and western sides of the Campus Pond. East and west routes follow the pond's northern and southern tips. Pedestrian circulation around the periphery of the campus becomes less organized. Vehicles compete with pedestrians for space on narrow access roads and cause confrontations where crossing of roads is necessary, especially on North Pleasant Street. In recent years, the campus has made progress in improving the accessibility of buildings to the physically disabled. A comprehensive study is underway to plan for conformance with the federal "Americans with Disabilities" Act.



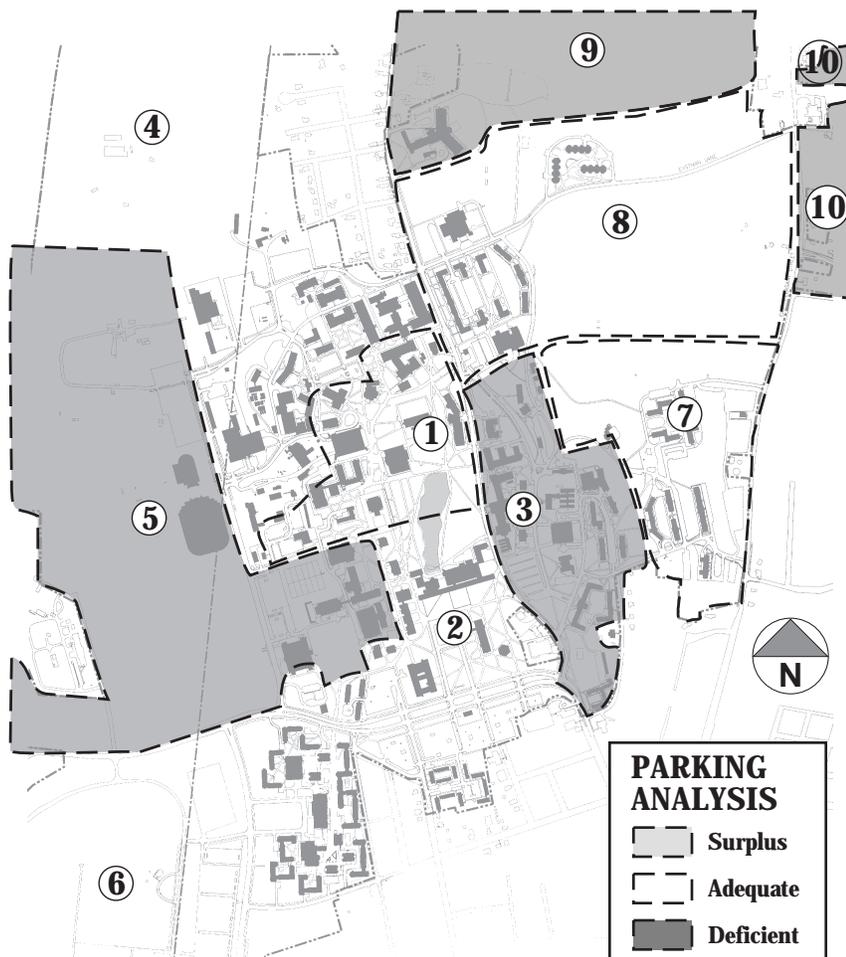
Public Transportation

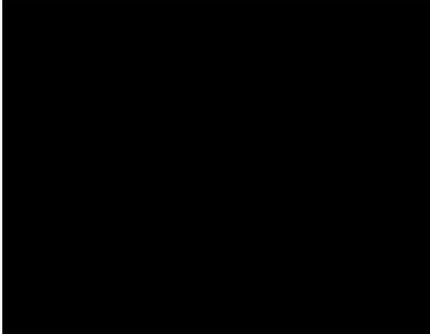
For over 20 years the University has been served by the Pioneer Valley Transit Authority (PVTa), which provides subsidized bus service to the campus, the surrounding communities and the Five Colleges. This system provides a safe, efficient and convenient alternative to private vehicles and represents a major asset for transportation planning and reduction of private vehicles.

Parking

The University parking system covers almost 6% of the total campus. Parking was analyzed by dividing the campus into 10 areas to identify where parking surpluses and deficiencies exist. The recent opening of the Mullins Center, a ten thousand seat multipurpose convocation/sports center, has placed added stress on this system, especially the western side of campus.

Hideo Sasaki characterized the university parking scheme in 1961 as “a system of small parking lots adjacent to each building” which results in a “great number of vehicles drawn into the center of campus.” Today, this same parking scheme largely remains, with the addition of several large lots at the periphery of the campus loop road. The small lots contribute substantially to pedestrian and vehicular conflicts and landscape fragmentation by bringing numerous roadways and vehicles into the campus core. Larger perimeter lots,

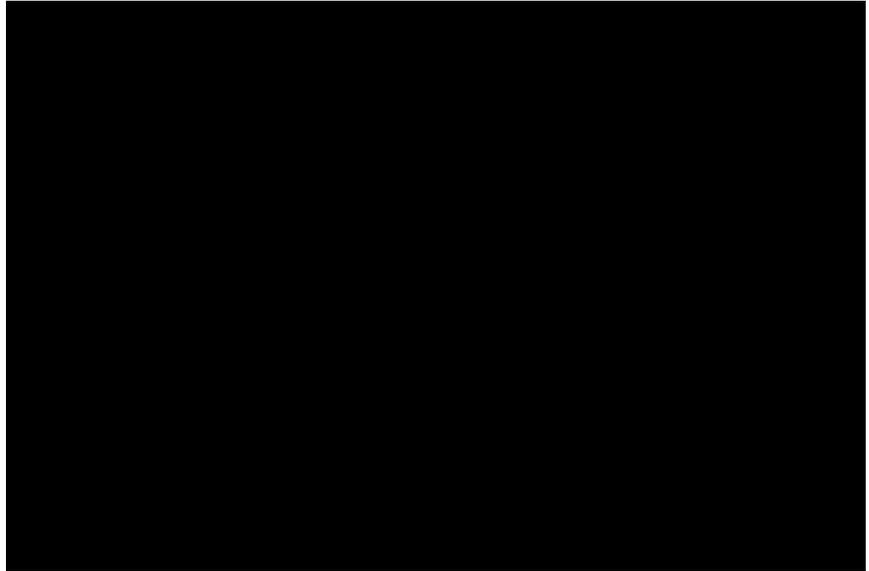




The Pioneer Valley Transit Authority provides subsidized bus service to the campus, surrounding communities, and the Five Colleges.

located at the edges of campus, provide efficient parking and enjoy good access to the campus core via the PVTA.

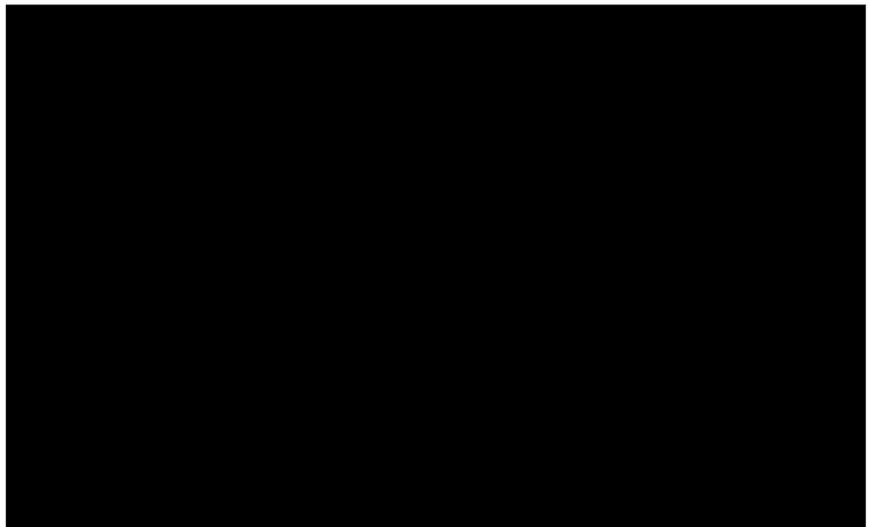
This year, the University issued 13,703 parking permits to students, faculty and staff. There are currently 10,703 parking spaces on the campus. Parking within the campus core (roughly one-third of the total) results in ongoing competition between vehicular and pedestrian circulation.



The ill-defined Governor's Drive and core campus parking have a major visual impact on the campus.

Bicycle Circulation

Although bicycles are used by many as a means of transportation to and around campus, there is a lack of support facilities for bicycles such as bike lanes on major routes to campus, bike paths on campus and storage facilities. A recently completed Five College bike path links the Town of Amherst with the City of Northampton to the west. While the University is not presently physically linked to this trail, an efficient link may be possible using University Drive.



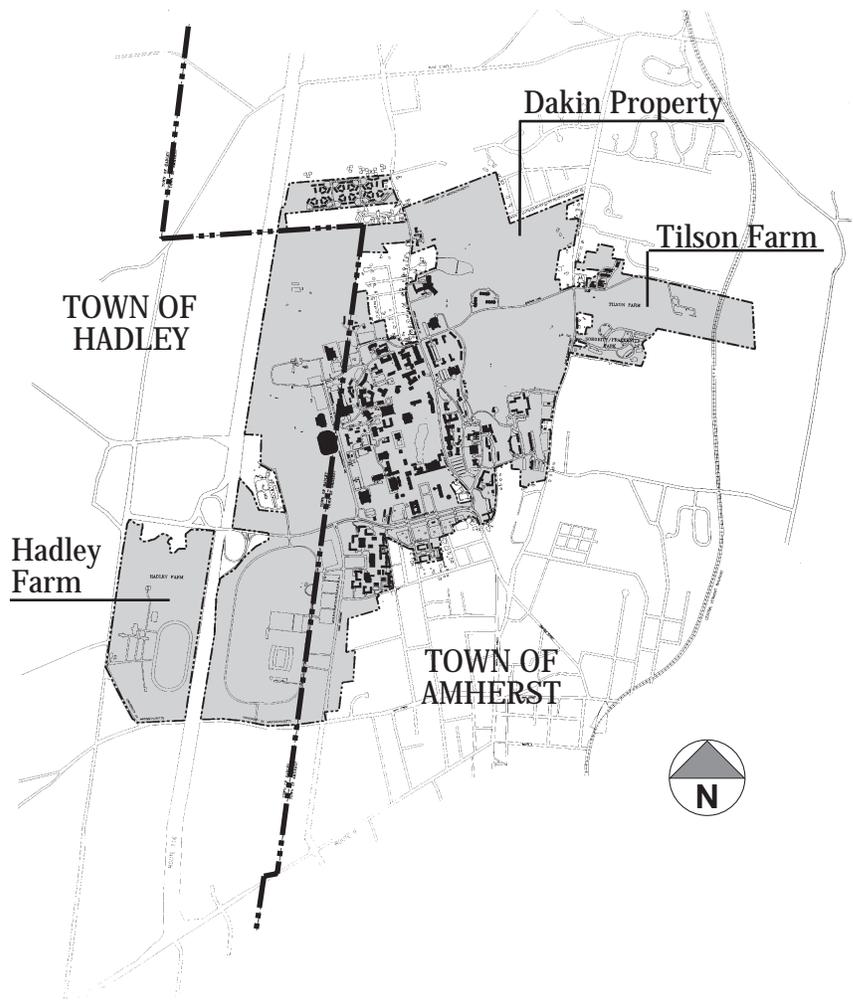
Campus Land Use and Infrastructure

The campus is organized around a core which is largely dedicated to academic and research uses. The campus' five major residential areas and the major parking lots are sited at the edge of the core and on the campus perimeter. Recreation is largely concentrated at the western edge of campus. Although support services are scattered throughout the campus, there is an emerging support cluster developing in the northeast sector of the campus (See Campus Land Use Map).

Most of the academic and administrative uses on the campus are clustered by school, college or administrative division. The College of Food and Natural Resources is a notable exception, with buildings literally in every corner of the campus. In planning workshops, the "clustered" model of campus building use was identified as desirable since it fosters student and faculty identity, provides efficient use of shared resources, and generates fewer vehicular and pedestrian trips, thereby reducing circulation conflicts. The Campus Building Use Map illustrates how the schools and colleges are distributed spatially around the campus. Also discussed in the workshops was the need to formulate a policy for the future of the University's historic buildings and significant landscapes.

Outside the core campus, land uses are generally less intensive. At the northern end of campus, the northwest corner and the Dakin property are not currently in use. These areas represent an important reserve for future development and a buffer from existing adjacent uses. On the eastern edge of the campus, the Tilson Farm parcel contains a mix of support services and academic uses as well as the recently constructed recycling facility. The Orchard Hill parcel is presently under-used since the major equestrian uses were relocated to the Hadley Farm. The southern edge of the campus includes the stadium which is surrounded by large areas of open land. The recently acquired Hadley Farm is located at the southwest corner of the campus and is dedicated to agricultural uses.

The campus contains a significant utility infrastructure including steam, chilled water, storm and sanitary sewers, water, electric, gas and telecommunications. These systems are largely independent from one another and are generally in a condition of advanced deterioration, with the exception of telecommunication installed in 1991. Major reconstruction efforts for steam lines have made substantial progress in defining utility corridors in which many systems may be located.



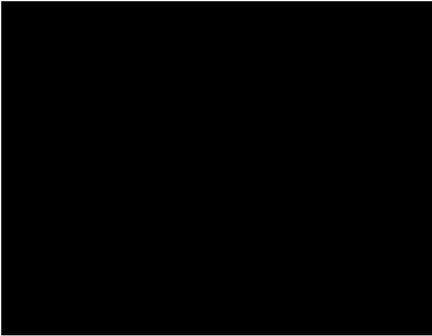
Campus Open Space and Recreation

The campus is located in the beautiful and diverse Connecticut Valley landscape. The campus has several types of open space linkages to this regional landscape. At the northeast corner, the campus is connected to an emerging system of protected conservation lands in the Town of Amherst extending to the north and east into the Pelham Hills. At the northern and western sides of campus are a system of wetlands which link the campus with the Mill River. To the west and southwest, the campus is connected to substantial agricultural lands, many of which are permanently protected from development through the Commonwealth's Agricultural Preservation Restriction program.

These linkages provide important opportunities for connecting the campus to the regional landscape and deriving ecological, recreational, and transportation benefits. The campus enjoys many fine views of the surrounding rural landscape which are important components of the campus' identity and image. The best of these outward views are located along the Whitmore-to-Library corridor, from Orchard Hill and Clark Hill Road, and from the northern end of the campus core. All of these views are oriented to the west and should be considered in siting future buildings or expanding existing structures. In addition, there are important views into the campus from the west approaching the interchange at Route 116.

Open Spaces

On the campus are several important open spaces. The Campus Pond is the symbolic center of the campus and intimately associated with the campus identity. The Rhododendron Garden and the Durfee Conservatory and gardens, Hamden Court, and the William S. Clark Memorial represent the finest designed landscapes on campus. These landscapes collectively contribute to the Frank A. Waugh Arboretum, an outstanding collection of plants on campus established to support teaching and research and to represent an important regional resource. The Arboretum includes the entire campus, including the boulevard plantings on Massachusetts Avenue, Commonwealth Avenue, University Drive, and Haigus Mall. Through the arboretum concept, the woodlands and wetlands of Orchard Hill and the northern and western edges of campus are recognized for their teaching and research potential.



The William S. Clark Memorial is an award winning design located on the eastern edge of campus.

Recreation

The campus has an outstanding collection of varsity sports facilities including the new Mullins Center, the Warren McGuirk Stadium, the Curry Hicks Cage, Garber Field, the upper and lower Boyden tennis courts, the baseball field and outdoor track. These facilities are clustered on the western edge of the campus core. Intramural recreational facilities are located throughout the campus, with a concentration near Boyden at the western edge of the campus. While most of the campus' residential areas have some recreational facilities including basketball and volleyball courts, there is a need for more intramural facilities integrated with the residential areas.

Economic and Community Development

The University of Massachusetts influences the economic environment of the surrounding communities, the region and the Commonwealth in three major ways: 1) payroll and local spending by students, staff and faculty; 2) capital investment in the campus and construction activities; 3) sustained economic development including technology transfer, workforce education and public service outreach.

As one of the largest employers in western Massachusetts, the funding levels of the University have a direct bearing on the economic health of the local communities. Reduced enrollments and staffing levels immediately translate to economic declines in the surrounding areas. Lack of growth at the University influences housing demand and commercial activity in the Pioneer Valley. Reduced payrolls have a ripple effect throughout the region.

Recent capital investment on the Amherst campus has resulted in opportunities for private construction companies to bid on campus projects. These impact the region in a positive way with indirect benefits to suppliers, the region's payroll and support services.

The University, through the generation of research and new technologies, is a prime contributor to the sustained economic development of local communities and the Commonwealth. The campus is also involved in workforce education through on-campus instruction of graduate and undergraduate students, continuing education programs and worker re-training programs. Public service, outreach and extension programs work with many industries throughout the state to provide current information, to act in advisory capacities to assist industry and to interact on a continuing basis to sustain growth.

Community Development

The two primary factors influencing community planning and development activities in the Pioneer Valley have been agricultural and educational pursuits and the requisite support services for those activities. It appears that these factors will continue to dominate with the addition of commercial development, office/research park development and tourism-based industry.

As the physical development of the campus unfolds, there are planning considerations at both the local and regional levels. At the regional level, the Pioneer Valley Planning Commission is charged with regional planning with a particular emphasis on environmental and transportation issues. Compliance with clean air and clean water standards is mandated by federal law and certain guidelines must be met by the end of the decade. Planning for the campus will be integrated with the regional planning that is currently under way.

Locally, land use planning for the campus and the area immediately surrounding the campus must be coordinated with the Towns of Amherst and Hadley to minimize conflicts, provide sufficient buffer zones and transition uses and promote compatibility between the campus and surrounding properties. Continuing a dialog with the communities is essential to facilitate the exchange of information, resolve conflicts and promote mutual interests for development.

At the campus edge, where campus property is adjacent to community development, much of the campus is presently undeveloped and represents no

conflict with existing uses. The main areas where conflicts do exist are located at the north (Fairfield Neighborhood), south (Fearing Street -Sunset Avenue Neighborhood) and southeast (Lincoln Avenue and North Pleasant Street) where University uses are located close to residential neighborhoods.

Campus Image Survey

In order to obtain input from students, faculty and staff on issues relating to campus image and identity, a survey was distributed through the campus newspapers. Over 200 responses were received. The survey requested information on most and least favorite places on campus as well as areas most in need of improvement. An interview of identical questions was administered to over 150 students. In total, over 350 responses were received with some useful findings. The Campus Pond was overwhelmingly identified as the most favored spot on campus, yet it was also identified as an area in need of improvement.

The survey also identified two “negative icons” which serve as persistent detractors from the campus image; the unfilled reflecting pools at the Fine Arts Center and the unsightly chain link fence around the University library which disrupts pedestrian circulation. In addition to these specific findings, the surveys and interviews served to reaffirm the importance of the campus image to the perceptions of students, faculty and staff. There were many comments included on the survey forms that illustrate how deeply people care about the campus’ image.

We have natural beauty all round the edge of campus. Let’s move some inward!

The mish-mash of building styles, the negligent driving patterns on foot paths, the poor drainage of walkways, and the lack of leadership hurts the overall ambiance of what could be a great university campus.

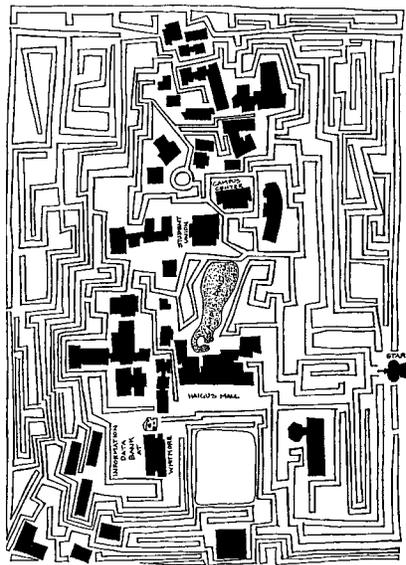
Put paths where people actually walk instead of paving where you want people to walk.

This is a beautiful campus--but you’d never know it!

Probably the worst “soft” problem on the campus is the mix of pedestrians and vehicles on campus walkways.

There are too many “squirrel roads”.

I think all vehicular traffic should be absolutely banned on campus. It is ridiculous how many people drive on walkways.



One interpretation of pedestrian circulation on campus. (Daily Collegian)

I would like to see much more attention to plantings, to maintenance of the landscape, to the aesthetic quality of our surroundings.

Along with a master plan, maintenance of what we already have, or propose to build/plant, is terribly important.

I also love the new Clark Memorial Garden.

More campus maps saying “YOU ARE HERE”.

How about some energy efficient tree planting in and near parking lots to reduce the heat island effect and “green up” the black areas - likewise some energy efficient tree planting near buildings to reduce cooling.

Even though people are very fond of their cars, do we have to be taken over by them?

Clean up the pond.

The architecture on campus is undistinguished. We need trees and shrubbery to soften the landscape. I would really like to see the plaza of the main library - the piece which is presently fenced off, planted. Dense shrubbery could replace the fencing, trees, and other plantings could replace the concrete/asphalt.

Please put many more benches around campus. Put the benches where people are, so the sitters can view the passing human scene.

Further encouragement of car pooling, mass transit, etc. to prevent the proliferation of parking lots around the perimeter of campus.

We need more and better parking facilities. We need less mud and fewer dirt paths. We need general sprucing up and cleaning up - place looks shabby to visitors.

Parking lots can be away from campus, and commuters can use the excellent bus system to shuttle from lots to campus.

I wish this were totally a walking campus with special 'rights of way' for service vehicles. Vehicles do NOT belong on walkways - - - ever.

It is too late to change what has been done with regard to planning. But it is not too late to change our thinking about the future.

I think that, in general, the aesthetics of the UMass Amherst campus are like a child's dirty face: underneath the occasional grime and unkemptness is good bone structure and the health and virtues (and vices?) of youth. Unfortunately, like a child, we often seem not to take the place responsibly and seriously.

4

CHAPTER



The Campus Tomorrow

A Vision for the Future

“We start with the idea that the purpose of a university campus is to provide a setting for the life of the university. Much of that life of course takes place in buildings and its richness depends on the quality of these buildings. But there is also a large part which goes on outside the buildings, in the landscape. The daily passage of people in the landscape should provide a nexus of meetings, of recreations, or merely of relaxation, all of which greatly enrich university life. If a campus has an image in the mind as a place to be loved and admired, it is likely to be formed not so much by the buildings as by the spaces between. When people say that Venice is a beautiful city, they speak not so much of the interiors of its buildings – which few of them see – as of the squares and streets and the life that goes on there; some cities like Paris, have a splendid image in spite of mediocre architecture, because of the delightful layout of streets and boulevards. A University is a kind of small city, where much of the value and pleasure of being there comes from the daily life of the place. The plan of a university, like that of a city, should be a mechanism for enabling things to happen, for the enhancement of life.”

Sir Peter Shephard
University of Pennsylvania, 1977

Trends

To plan for the campus tomorrow, the University must look at current trends that are affecting higher education. Student populations are becoming older and multicultural, telecommunications are playing a larger role in education allowing for diverse learning strategies, entrepreneurial enterprises are evolving from faculty research efforts, and public / private partnerships for both research and support services are expanding.

The intent of this plan is to develop a strategy that responds to these trends and is flexible enough to address future needs.

The Vision

The University of Massachusetts has achieved national and international recognition for its teaching and research programs. Yet even with its wonderful setting in the Pioneer Valley, the campus itself suffers from a lack of completeness. A successful world-class university campus is more than a collection of facilities. It is an environment for learning, a special place where a community of students, faculty, staff, and citizens come together in a joint pursuit to

generate, teach and disseminate new knowledge. This is a lofty charge that is worthy of a well conceived, stimulating, efficient, and beautiful campus.

Improving the physical condition of the campus is an important undertaking. Recent research shows that over 65% of incoming students make a decision about a campus based upon its physical appearance and resources. The campus should be a place where students aspire to live, a place of beauty. Providing students with pleasant memories of their experiences on campus can only improve alumni relations by instilling pride for the institution.

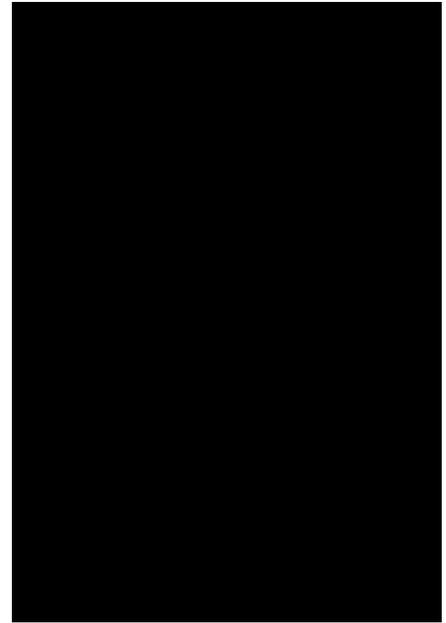
The vision is to improve the campus' physical qualities to match the academic excellence of the University making UMass a five-star attraction known by each and every resident of the Commonwealth. It will be a garden in the valley that attracts the top students and best faculty, a place where the quest for knowledge is enhanced by the quality of life. The campus will be a regional destination that attracts visitors from around New England and conferences from around the country. We have an opportunity to realize this vision.

Goals

1. Develop a campus image that identifies the University of Massachusetts at Amherst as the Commonwealth's flagship University, the leading public University in New England with a strong national and international reputation, and that complements the University's heritage and setting in the Connecticut River Valley.
2. Create an environment that supports the mission of the University, provides a high quality of living for students, and inspires excellence in teaching, research and professional service allowing the University to be an economic engine for the Commonwealth.
3. Integrate new facilities and resources within the campus core in a way that improves the existing patterns of land use, circulation, parking and open space.

Objectives

- Establish a clear sense of entry and arrival to the campus.
- Extend the concept of the campus as a pedestrian environment.
- Preserve and enhance the quality of the landscape surrounding the Campus Pond.
- Limit the land area devoted to parking in the campus core.
- Maintain the campus core for academic development and locate non-academic uses on the perimeter.
- Remove negative campus icons such as the fence around the library.
- Study the establishment of private retail/commercial activities on campus.
- Identify areas of campus suitable for development.
- Revive the campus arboretum.



The Concept

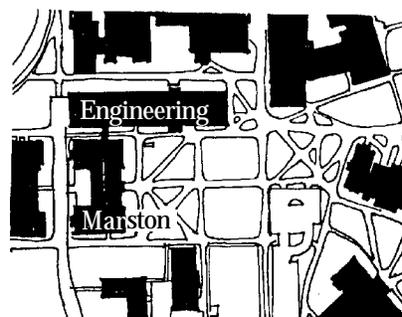
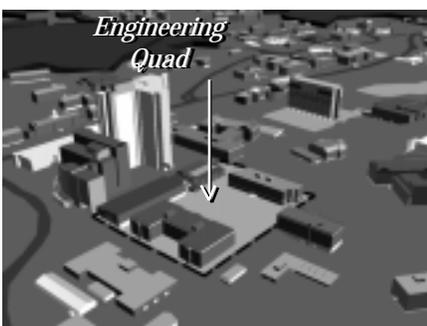
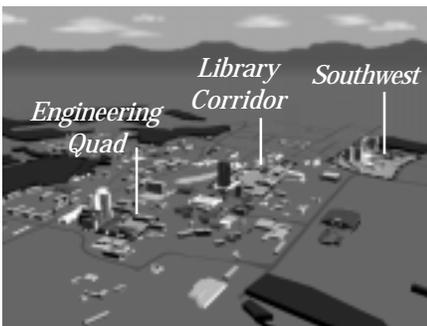
The major concept for this strategic plan is that future academic development be guided by a strong infill policy within the existing campus core to strengthen and improve the campus' overall physical organization, movement systems and landscape open spaces. This single policy, if properly implemented, directly addresses the plan's goals and objectives and will:

- Maintain the campus' rural setting by filling vacant spaces within the campus core rather than spreading development to the outer limits of University land.
- Upgrade and complete the campus core's edges, specifically the western edge, so that the campus welcomes visitors at all its entrances with a front door image.
- Create an improved sense of orientation for campus visitors, residents, students, and staff by defining clear pedestrian corridors and human scaled spaces.
- Reduce travel time for students and faculty between buildings.
- Centralize infrastructure, thereby reducing costs to service new facilities.

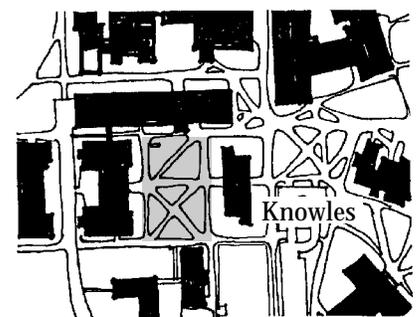
Infill

Infill is not just the random placement of buildings into vacant spaces on campus. It is a strategic approach, inserting new structures into the existing campus fabric to define a new exterior space, establish a pedestrian corridor, frame a view and create a new gathering place for students.

A study of three representative areas of campus, the Engineering Quadrangle, the corridor between the University Library and the Whitmore Administration Building and Southwest Residential area revealed that the ratio of building floor area to ground area (coverage) is between 1.1:1 to 1.15:1. For example, the Engineering Quad consists of three buildings with a gross floor area of 164,684 square feet sited on 3.4 acres of land. This is equivalent to the entire ground area being covered by a building 1.1 stories high.

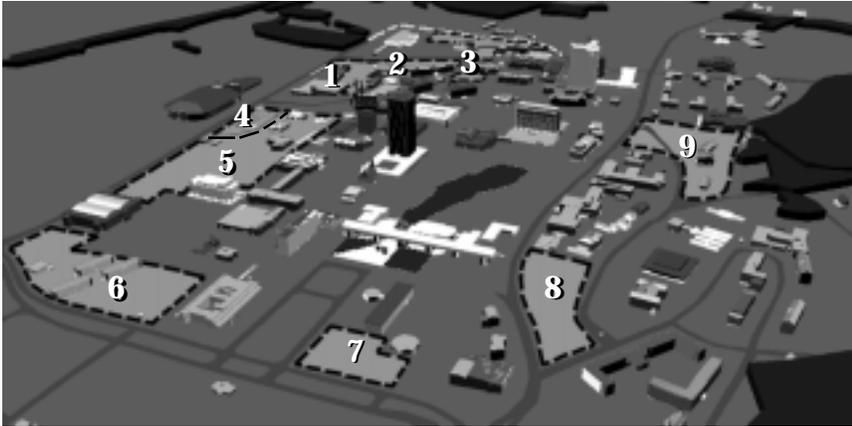


Before



After

One example of infill on campus that has created a positive space is the addition of the Knowles Building which defined the Engineering Quadrangle..



The nine potential infill areas on campus

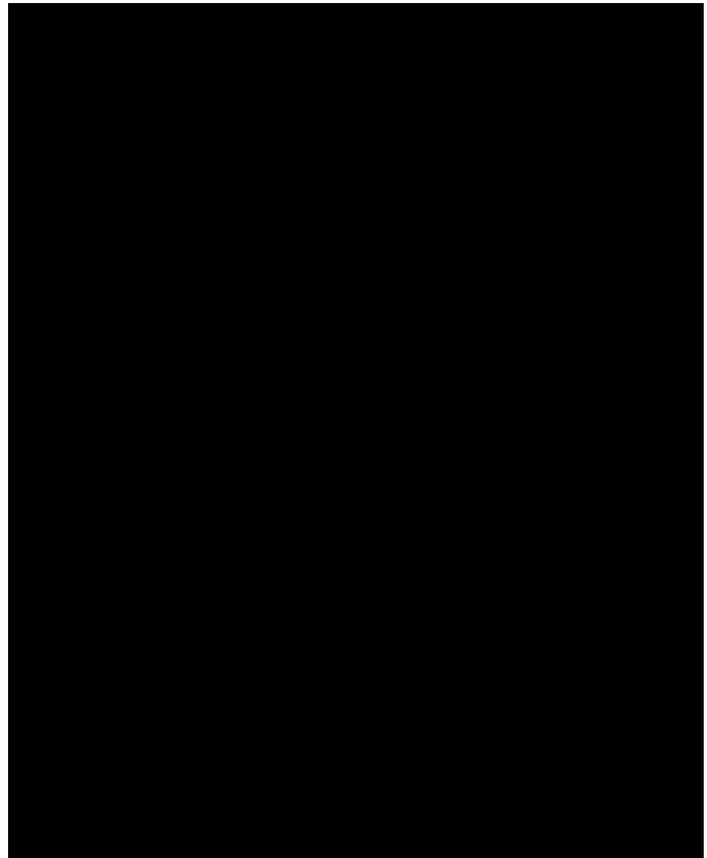
An evaluation of the core campus' development potential identified nine possible infill areas totaling 52 acres. To determine the development capacity of the core campus, a conservative ratio of 1 square foot of building area to 1 square foot of ground area was used. The 52 acres of infill would yield an additional 2.25 million gross square feet of building space to the campus, a 45% increase over the 5 million gross square feet of existing academic, research and administrative building space. This space is adequate for the campus' development needs forecasted within the planning horizon (see Table2 – Program, page 38).

Areas of Excellence

There are two basic strategies to improving the physical image of the campus. One is to bring the entire campus up to a state of relative repair. This spreads limited resources over a wide area and results in mediocrity. The other strategy is to target limited available funds on “areas of excellence”, important locations on campus that are highly visible, and make them showpieces. These places become positive icons and can be used to attract external, private funds. Although a combination of strategies is required, the strategy of developing “areas of excellence” has the greatest probability for achieving the goal of bringing the entire campus up to this high standard.

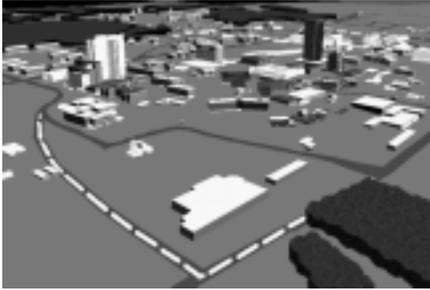
The first “area of excellence” is the area surrounding the campus pond. In surveys of students, faculty and staff, this was identified as people’s favorite place by a wide margin. However, it was also identified as one of the top five areas that people wanted to improve. A key starting point would be implementing the design for the student union plaza which would enhance the quality of student life on campus and act as a pedestrian gateway to the campus pond. Other areas of excellence are the Durfee Gardens, Haigus Mall and the Campus Center Area.

The magic of the Campus Pond.



Circulation and Parking

Vehicular Circulation



Proposed realignment of Governors Drive.

A central element of this strategic plan is the completion of the campus loop road with the realignment of Governor's Drive. The alignment adds land to the campus core, provides safer and more efficient vehicular movement and defines the northern campus edge.

Regional circulation impacts the University's potential for economic development, especially Route 9 which limits the flow of traffic to campus. A strong multimodal transportation system should be initiated to reduce the number of cars coming to campus. Ridesharing, linkage with the Five College Bikeway, and park and ride alternatives in conjunction with Pioneer Valley Transportation Authority (PVRTA) must be explored. A formal transportation plan must be developed in conjunction with the Pioneer Valley Planning Commission in order to insure compliance with Clean Air Act regulations. The University should be a leader in this area and should preempt the imposition of such a plan. One step would be the establishment of a multimodal transportation center to facilitate the implementation of these plans.

Parking

Parking should be eliminated from the core of the campus (with the exception of handicapped spaces) Core campus parking areas impede pedestrian movement and are valuable sites for new buildings and open space.

A University-wide parking management plan should be developed to determine the appropriate parking policies for the campus and to consider the appropriate combination of parking facilities (surface and structure) to meet the parking demands in the future. The parking management plan could consider the feasibility of parking structures and additional perimeter lots to compensate for any lost spaces and to meet the needs of the Mullins Center. A multimodal transportation strategy including the previously mentioned transportation alternatives should reduce parking demand.

Tree-lined pedestrian corridors provide a strong sense of direction.

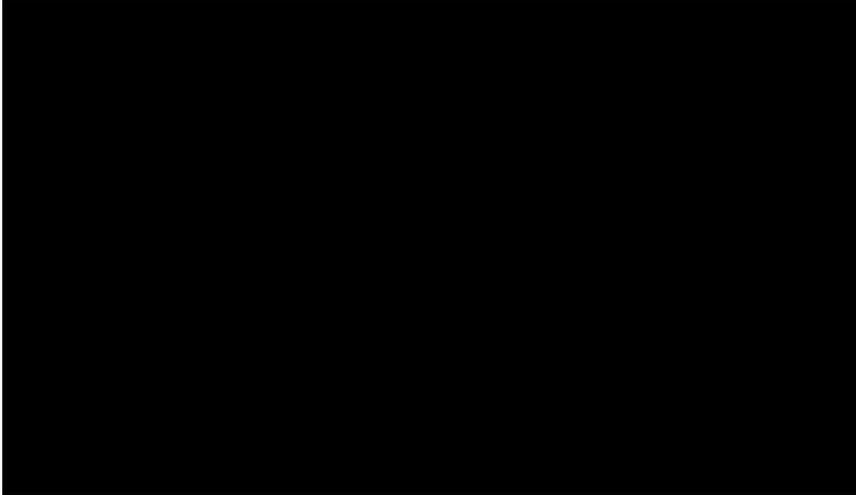


Pedestrian Circulation

Pedestrian circulation lacks strong organization with the exception of the north-south corridor between Whitmore and the University Library. Pedestrian movement currently conflicts with parking, service and North Pleasant Street and generally lacks strong physical structure. There is an urgent need for the creation of well-placed corridors to serve as primary pedestrian paths. They should be lined with trees and lighted for nighttime use. In addition, several major crossings along North Pleasant street should be defined to enhance pedestrian safety, in contrast to the eleven minor crossings that currently exist.

Pedestrian corridors and open space should serve as a framework that guides any new building location as the proposed infill policy is implemented. This detailed level of planning is the next logical step that should follow this strategic plan. Overall planning and design guidelines for the campus landscape and pedestrian circulation system can also be used to attract alumni and external funds. One such method would be to reestablish the class walks of which only two still exist. The embedding of the class numbers into concrete walkways can help to bring back some of the campus' history and spirit.

Strong east-west connections are needed from the residential areas on the



Underpass leading from Southwest Residential area to the campus core.

eastern edge of campus to the core campus and from the campus core to the new Mullins Center. An important future north-south corridor should be established from Southwest residential area through the underpass and north between Boyden and Tobin. This proposed infill area, currently occupied by tennis courts and parking, is an important area for future development.

Another proposal is to close Stockbridge Road to through traffic between Clark Hall and Public Health. The northern and southern segments of the road are needed for service access, but the central portion should be a pedestrian corridor which accesses some of the campus' most historic buildings. In addition, the new design for Durfee Garden is now implemented and can serve as a gateway for this pedestrian corridor.

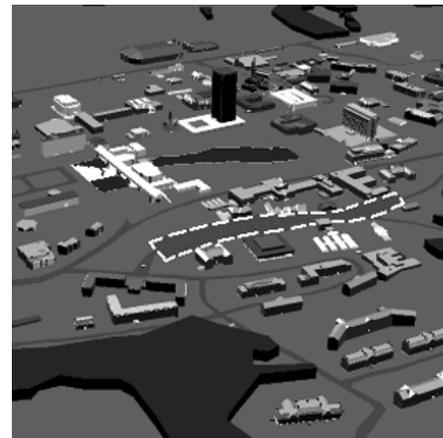
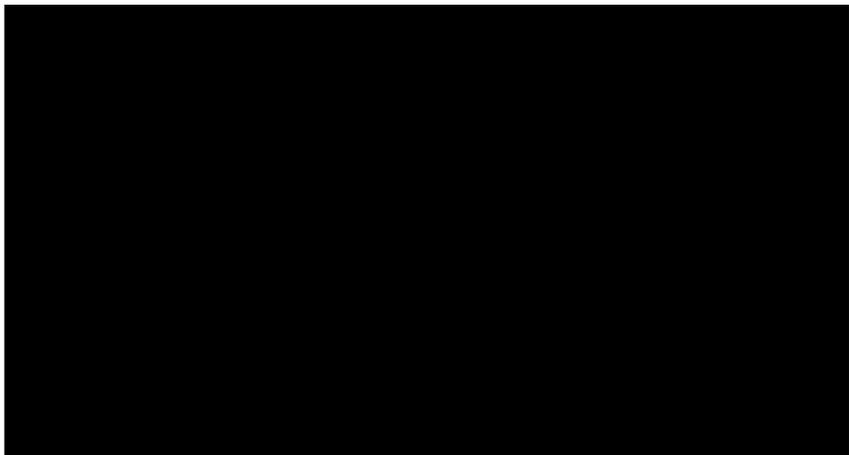
Service Circulation

A major problem still exists on campus with service vehicles traveling on pedestrian walkways. The policy of limiting service vehicles on pedestrian ways must be enforced and the same policy adopted for outside vendors as part of any contract agreements.

There is no bicycle circulation system on campus. Few bike racks are provided for parking and there are no designated paths for bicycle riders which leads to conflicts with both vehicles and pedestrians. The needs of this neglected mode of transportation must be addressed through designated travel lanes and parking areas.

As a first step, the University must connect with the new Five College Bikeway system. This will provide one small component of a multimodal transportation initiative.

Bicycle parking needs to be established in planned areas that do not conflict with pedestrian traffic, yet are safe and secure.



Perspective view of Stockbridge Road Corridor to be closed.

Campus Land Use and Infrastructure

The guiding concept for this strategic plan is that future academic development be guided by a strong infill policy within the existing campus core to strengthen the campus' overall physical organization, movement systems and landscape open spaces. By establishing a strong infill policy, the major undeveloped lands to the North can be reserved for future needs beyond the timeframe of this plan.

An analysis of the campus' natural and cultural factors identified nine potential sites in the campus core where infill development could take place. To determine the proper use of these potential areas, the plan recommends that working groups be established for each of the nine study areas – labeled A through I in the Core Study Map (page 40). The goal of the working groups will be to explore development programs and options for their specific area.

Seven of the nine schools and colleges on campus have their departments clustered in close proximity. The major exception is the College of Food and Natural Resources, which has departments located in all four corners of the campus. A policy that future expansion be sited in close proximity to the corresponding colleges should be adopted.

In addition, the space needs for each college and school should be updated so that an overall facilities program can be established for a comprehensive master plan.

Buildings

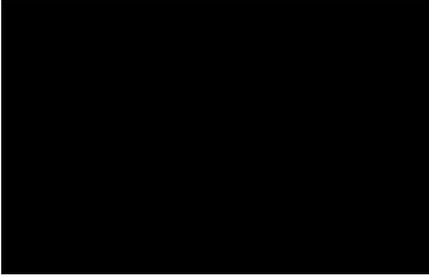
Unlike the growth that took place during the 1960's and 1970's, the changes foreseen in this strategic master plan are not in response to increasing enrollments. There is a need for facilities that respond to existing deficiencies, to provide modern laboratories and scientific equipment, to meet the demands of a demographically changing student profile, and to house a growing library. In addition, several older buildings are dysfunctional and must be either renovated or demolished.

To identify which buildings should be renovated versus demolished, a comprehensive facilities audit should be undertaken that looks not only at the physical structure of each building, but also at its historical and cultural significance to the campus. The Old Chapel is one of the oldest buildings on campus and may be eligible for the National Register.

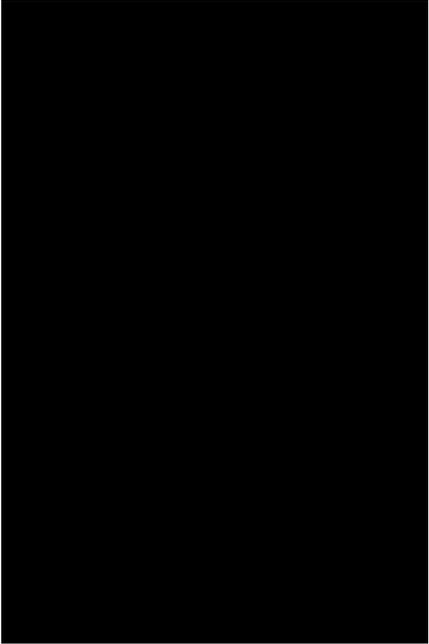
With reduced state support, new sources of funds will be necessary for building construction. Three projects which are particularly well suited to capital campaigns for construction are the Old Chapel renovations, construction of an Alumni Center and a Multicultural Center.

Utilities

The University's utility systems include water, sewer, storm drainage, electrical, steam, chilled water and telecommunications. Two of the major utility systems – steam and chilled water for air conditioning – are currently at capacity. An engineering study to delineate the existing location, condition and expansion capacity for these systems should be undertaken. There is currently a proposal for a co-generation power plant in the northwest corner of campus which would have an impact on views and the visual quality of the campus. The plan recommends that the future facility be located to the west of Commonwealth Avenue and to the north of Governor's Drive.



New buildings will be in response to a need for updated instructional and research laboratories. (Silvio Conte Polymer Research Center).



The Old Chapel is one of the campus' most familiar and beloved icons.

Facility Needs Identified in Planning Workshops

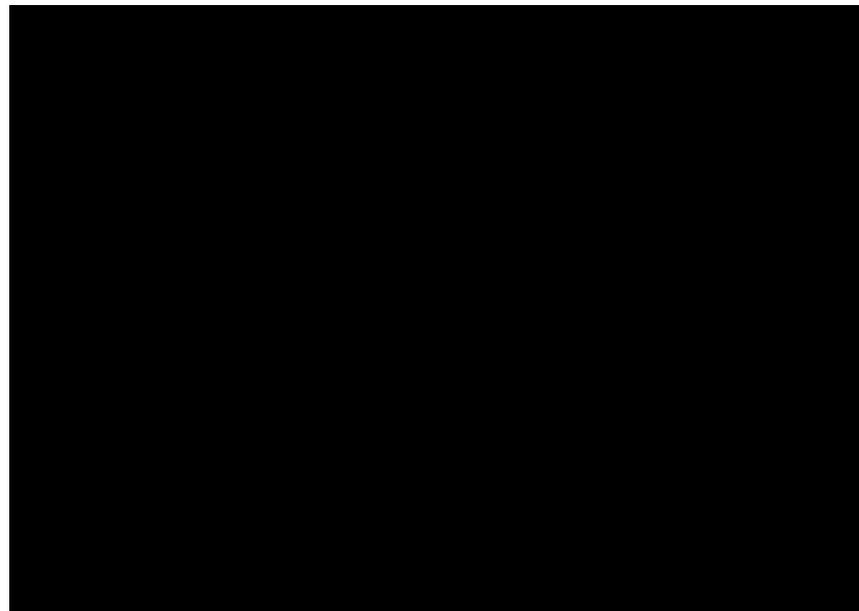
Short – Medium Term Projects

Alumni Center	Animal Care Facility
Class Room Building	Co-Generation Plant
Computer Science/CRICCS Building	Engineering Building

Long Term Projects

Arboretum Visitors Center	Multicultural Center
Art Building	Multimedia Center
Central Services	Multimodal Transportation Center
Child Care Center	Parking Structure(s)
Computer Center	Recreation Buildings
Continuing Education	Research Park
Faculty Housing	Revenue Generating Property
Greenhouses / Ag Lands	Storage / Warehouse
Housing Administration	Teleconferencing Center
Incubator Buildings	University Gallery / Museum
Library Facilities	Chapel Renovation/Restoration
Life Science Building	

Table 2 – Possible program of future building activities located in campus core.



Campus Open Space and Recreation

A central principle that guided the development of this plan was to improve the quality of student life on campus. Two major physical factors that influence student life are the aesthetic character of the campus and the availability for active and passive recreational opportunities.

We recommend two studies to address the issues of open space and recreation. The first is the development of planning and design guidelines for the campus landscape and pedestrian circulation system. The second is to conduct a recreation master plan to address the facilities needs for structured and unstructured recreation.

Campus Landscape and Open Space

The current experience of walking across campus is like navigating through a maze across busy streets, over broken curbs, and around maintenance vehicles parked on pedestrian walkways. This does nothing to enhance the quality of campus life.

The campus landscape and open space are the fabric that hold the campus together. Therefore, planning and design guidelines for the campus landscape and pedestrian circulation system should develop a palette of materials and a coherent system of walkways, open spaces, and gathering points to add meaning to the pedestrian experience. The study will provide a list of “areas of excellence” along with conceptual designs which can form the basis for a capital campaign. A first step is reestablishing the class walkways – embedding the brass numbers back into paths around campus, many of which are still at Physical Plant – by soliciting donations from each class.

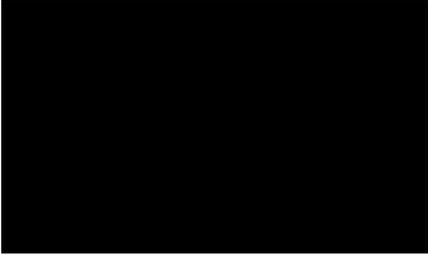
Recreation and Athletics

The second study is a recreation and athletic facilities master plan that ensures diverse recreational opportunities for all residential areas and varsity sports. Athletics can play an important role in enhancing the image of a university as evidenced by the recent success of the basketball team. Resources should not only be available to ensure the continued success of these teams, but for the average student as well. A comprehensive look at existing resources is needed.

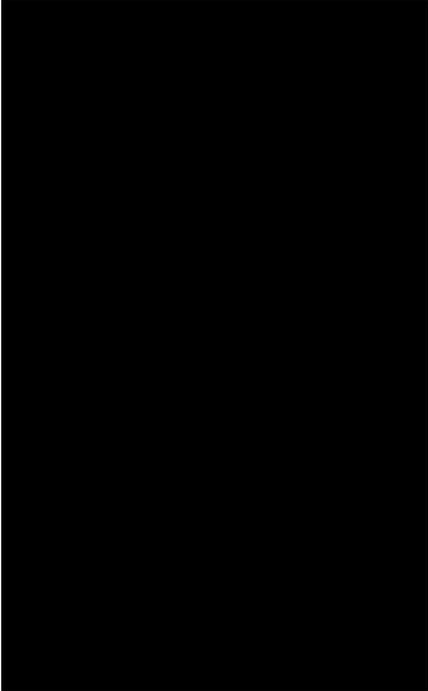
Recreation fields such as those along Commonwealth Avenue should be viewed as permanent facilities and not as potential building locations. These facilities are important recreation, but also serve as an important visual resource.

Remove Negative Icons

To improve the aesthetics, the first priority is to remove some of the negative campus icons. Two of these negative icons, the reflecting pools in front of the Fine Arts Center and the fence around the library, have entered the folklore of the campus. These are relatively low cost but high impact improvements that could have a large impact on the psyche of the campus population. Recent improvements to the reflecting pools should be followed by a long term maintenance plan. Other negative icons are service vehicles on walkways and broken and muddy pathway edges which have a direct cause-effect relationship.

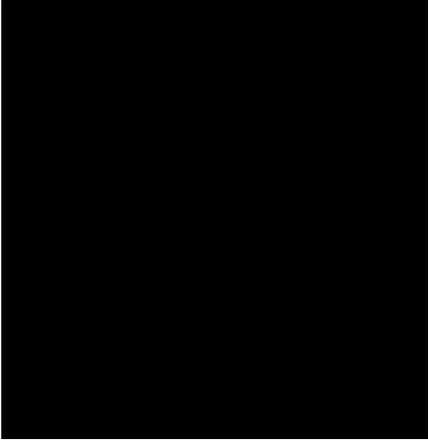


The quality of student life is central to this plan.



The UMass basketball team has provided a positive image for the University.

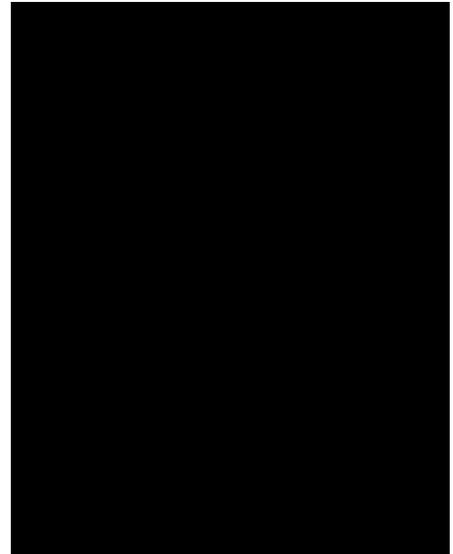
The fence around the University Library has been a negative icon on campus for over 16 years.



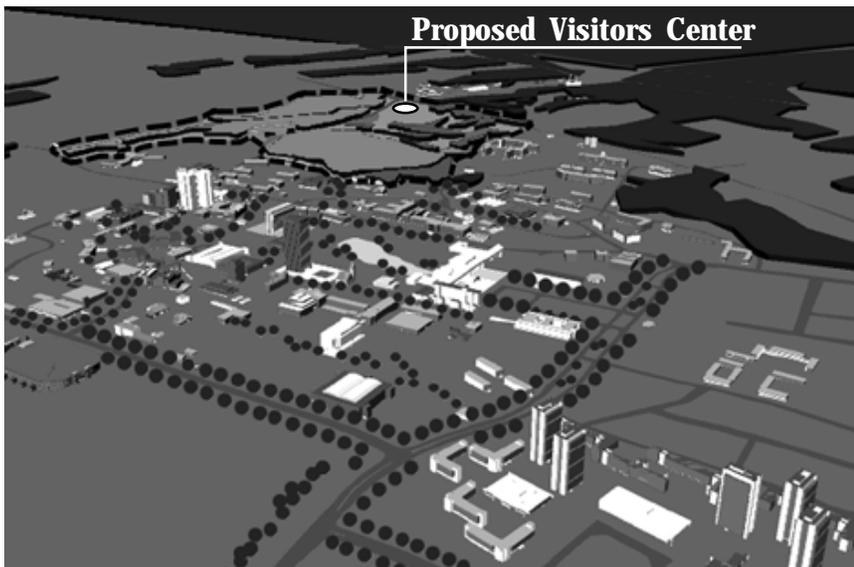
The Frank A. Waugh Arboretum

The Frank A. Waugh Arboretum can provide the vision for a renewed campus landscape. It has the potential to become a world-class arboretum featuring plants from temperate climates throughout the world and supporting world-class research in areas including: horticulture, ecological restoration, and urban forestry. The Waugh Arboretum is rooted in the University's agricultural past, and in its extensive international connections – especially with Hokkaido, Japan, our sister University founded by University President William S. Clark. The arboretum was officially named after Frank A. Waugh, the founder of the Department of Landscape Architecture and Regional Planning and noted author. The arboretum could function as a green framework for a new UMass campus if it has a clear and appropriate vision, if its educational and research potentials are realized, and if it is provided with sufficient space to achieve identity and recognition.

In support of the Frank A. Waugh Arboretum a multi-tiered development concept is recommended. First, the Arboretum needs to have an identifiable core area dedicated to a permanent collection and accessible to the general public. The Orchard Hill tract, in the northeastern sector of campus is the ideal location for this core area which will include a visitors center, display and teaching gardens, and research plots. Several parcels adjacent to this core area have been identified for compatible development which will complement the Arboretum and benefit from its proximity. Clusters of campus residential development are recommended for these parcels which will provide alternative forms of housing beyond current offerings. The second tier of the Arboretum concept is an extension and linkage of the core area throughout the campus following environmentally-constrained lands. From the Orchard Hill "core area", the Arboretum would extend via wetlands and steeply sloping lands into the Dakin property to the north, and to the campus core via the Orchard Hill slopes. Finally, the Arboretum is proposed to include all plantings and gardens on the campus including the Rhododendron and Durfee Gardens, boulevard plantings, the Whitmore and library courtyards, and specimen plantings throughout the campus core. Through this multi-tiered approach, the campus will become a complete environment for learning.



The Amur Cork Tree was introduced to the campus Arboretum by President William S. Clark.



The core Arboretum and Arboretum Visitors Center are located at the top of the image. There should be a strong image of the Arboretum permeating throughout the campus.

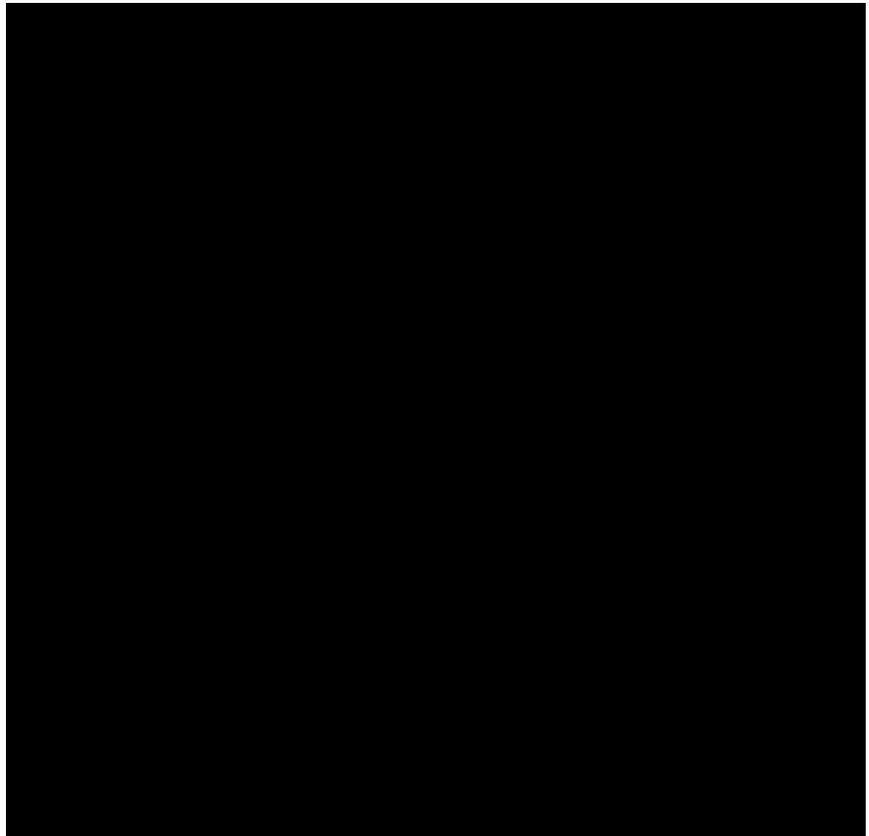
Economic Development and Community Planning

The areas of economic development and community planning represent emerging external roles for the University. It is anticipated that the University will play a significant role in the economic development of the local community, the region and the state. The campus also recognizes the need to interact with the adjacent communities and regional planning agencies in developing long range plans for land use, transportation, traffic, and open space.

As one of the largest employers in western Massachusetts, it is important for the campus to achieve stability in its annual funding. Fluctuations in the University's base budget are felt throughout the region's economy, from housing to retailing, from consumer goods and purchases to services.

Future investment in the campus may include private sector involvement in the form of privatization of services, partnerships and joint ventures in development projects and research programs, and philanthropic contributions. To attract these investments, the campus must establish appropriate policies and development guidelines to clearly articulate the opportunities available to these constituencies.

Perhaps the largest contributions to economic growth will be the continuation, and enhancement, of sustained economic development activities which include production of new knowledge in the information age through world class research, technology transfer, workforce education, and on-going business support activities.

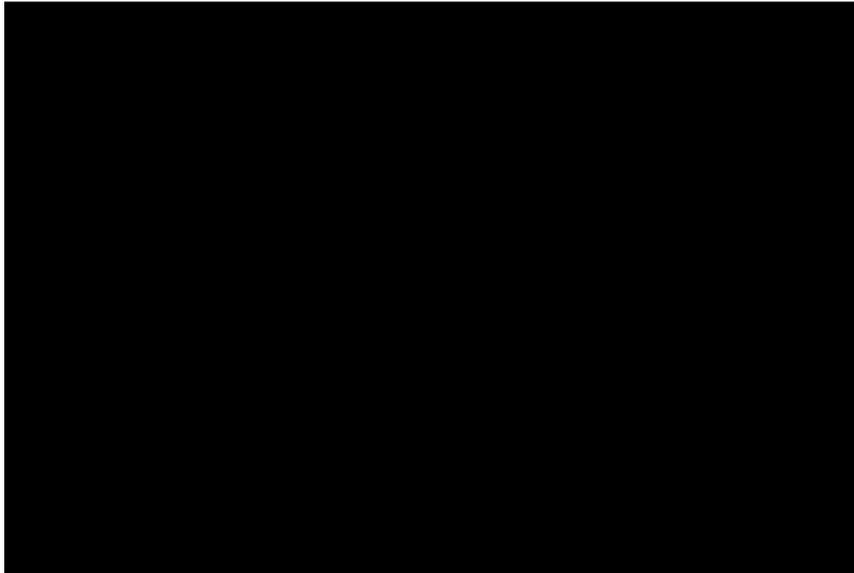


Economic Development

There are several economic development concepts that should guide the economic development efforts of the University of Massachusetts in the coming years. The concepts focus on the role of the faculty, staff and a variety of constituents in economic development, public/private partnerships and community relationships.

An important role of the University's faculty and staff is to create new knowledge, to test new techniques and to develop alternative means with which to improve the nation's quality of life. These activities translate into economic development and need to be supported, nurtured and stimulated.

The conversion of ideas to products can occur smoothly and efficiently on the University campus. It is time to consider models for joining business



University related economic development is dependent upon modern laboratories.

and academic activity in a formal manner, both on and off campus. As our entrepreneurial culture becomes deeper and wider, these ventures will become commonplace. The University of Massachusetts should develop a policy and pursue appropriate legislation to enable and encourage public/private entrepreneurial activities. It may be appropriate that some of these facilities be housed proxemically to academic offices and laboratories.

University faculty are active in more than 120 nations. We must insure that students, faculty and staff can transfer information as rapidly, effectively and efficiently as global corporations. The University of Massachusetts needs to remain committed to providing its faculty and research staff with the most modern information and telecommunications facilities possible.

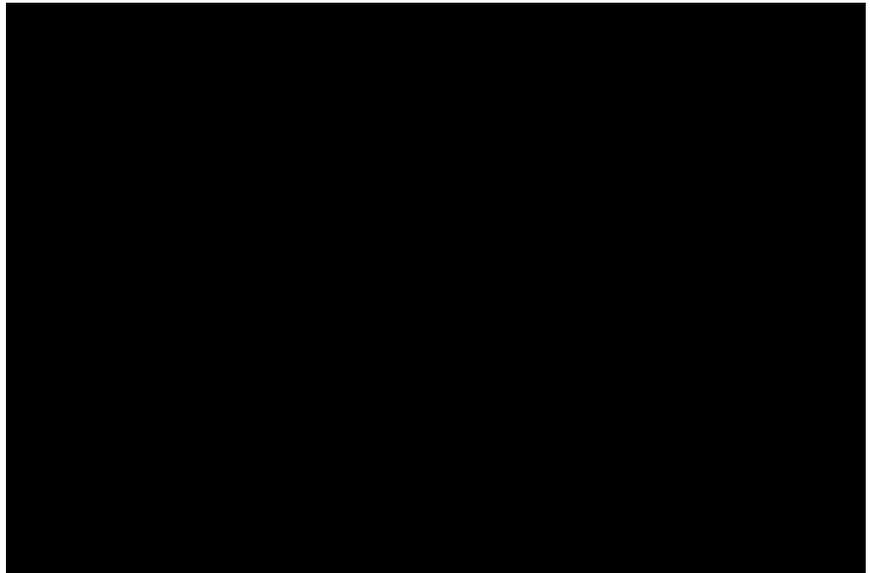
The University belongs to the Commonwealth. This is clear to the faculty who are involved in outreach activities related to economic development. These range from Cooperative Extension to Continuing Education and more than twenty research centers, institutes and groups. These outreach offices need facilities that are technologically advanced, and located in areas that are easily accessible to the public on the perimeter of the campus.

Community Planning

Land use planning for the campus and its host communities must be coordinated to minimize conflicts, provide sufficient buffer zones and transition uses, and promote compatibility between the campus and the surrounding properties. Continuing dialog with the communities is essential to facilitate the exchange of information, to resolve conflicts, and to promote mutual interests for development.

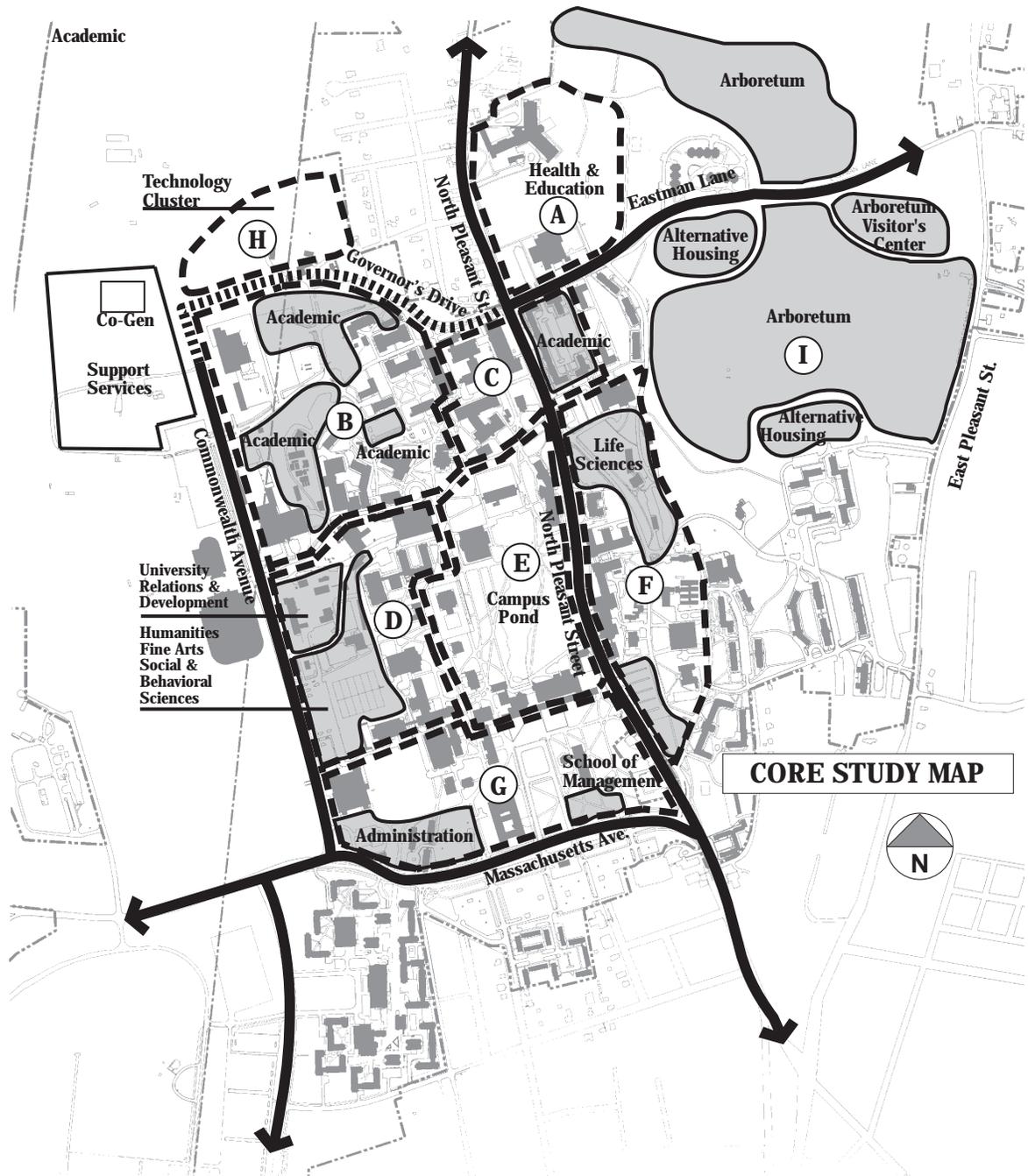
Planning for campus land resources will be integrated with regional and community planning efforts aimed at compliance with state and federal environmental mandates. The campus will work with local, regional and state officials to meet air quality, water quality, and environmental protection requirements.

The private establishment of a research park in existing industrial zones of the Towns of Amherst or Hadley could attract industries affiliated with campus research faculty. Research parks of this nature could advance the personal and professional needs of our faculty, bring needed tax revenue to the host Town(s), provide space for spin-off industries and expand the job base of the region. This last point is important to the University. To attract top rated faculty it is frequently important to address the employment needs of two spouses. By having a strong, professional job base nearby, we can help to meet this need.



Campus Development Issues

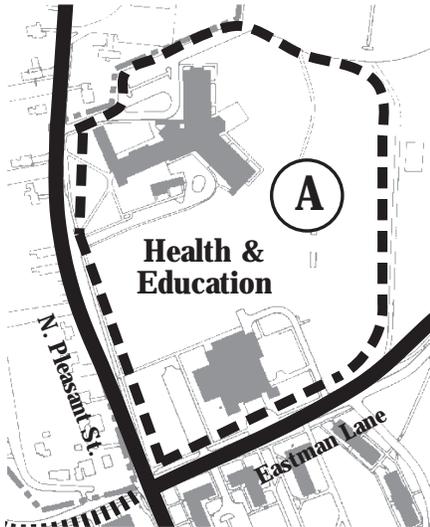
To advance the goals of this plan, it is recommended that work groups be organized to address issues specific to particular areas. These areas are identified below.



Area A: Health & Education

Area:
Potential Infill:

24 Acres
undetermined



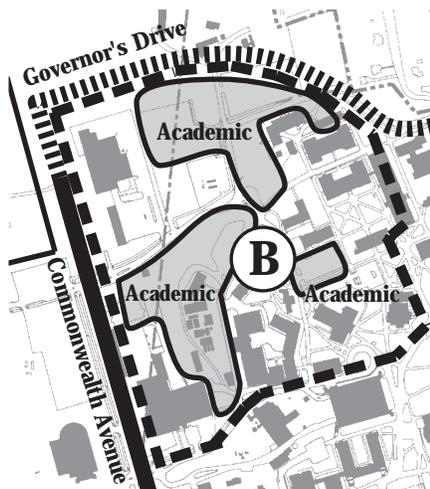
Area A marks the major point of entry to the campus from the north and should offer a distinguished northern gateway through architectural design, building siting, and landscape amenities. Its location makes it a critical connector between the campus core and the undeveloped campus lands to the north and east. A major intersection and traffic light at Eastman Lane and North Pleasant Street lies adjacent to Area A, making it a busy site for both pedestrian and vehicular circulation. The Fairfield residential neighborhood lies to the west and the Sylvan Dormitory sits to the east. Plans and designs must respect the privacy of these housing areas, and preserve desirable views from the eastern hills above campus.

Current facilities within Area A – Furcolo Hall, the Marks Meadow Laboratory School, and the Totman Gymnasium – house the Schools of Education and Physical Education. Both schools occupy space in other locations on campus as well, giving them a decentralized physical organization. Because Area A consists of several athletic fields, final determination on infill potential should be dependent upon the proposed Recreation and Athletic Facilities Master Plan, and the needs assessments for the School of Education, the School of Public Health, and the School of Nursing.

Area B: Governors Drive

Area:
Potential Infill:

51 Acres
15 Acres



Area B occupies the northwest corner of the current campus core and is the site of many of the University's transportation, parking and service facilities. Governors Drive links two of the campus's major vehicular routes – North Pleasant Street and Commonwealth Avenue – and meanders through academic development, parking lots, and service structures. Essential to Area B will be the completion of the loop road around campus through the re-alignment of Governors Drive at this western segment.

Centrally located within Area B is the College of Engineering, including its main quadrangle, the College of Food and Natural Resources, and the College of Natural Sciences and Mathematics. Approximately 15 acres of open land will accommodate roughly 650,000 square feet of new development, allowing space for each of the three colleges to expand. New buildings and landscape alterations should strive to better organize each college into a more cohesive cluster.

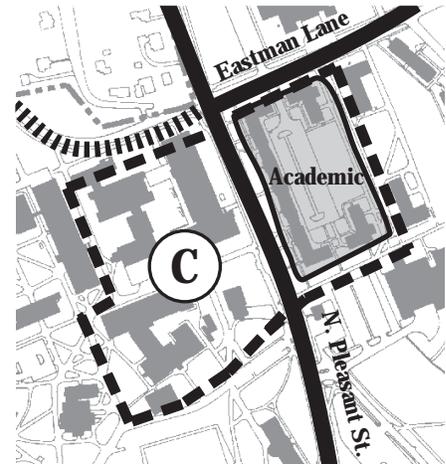
Across Governors Drive lies the campus's undeveloped northwest area, making Area B an important link between the campus core and future expansion in the northwest. Plans should include a pedestrian link between this future development site and the campus core, as well as a prominent entrance to the north end of campus.

Area C: Graduate Research

Area: 16 Acres
Potential Infill: undetermined

The Graduate Research Area sits at a major intersection for vehicular and pedestrian traffic; North Pleasant Street divides the Area in half. Structures are tall and arranged densely, giving this part of campus a particularly urban image. Area C is home to the new Conte Polymer Research Center and Graduate Research Center making this a hub of graduate research activity. The Graduate Research Center has reached its full development capacity.

To provide for the expansion of the Graduate Research Center complex, a portion of the current Northeast Residential area could be studied for possible conversion to academic use, contingent on housing plans for replacement or alternative housing. Any new development in Area C should offer a strong connection with the Graduate Research Center complex, and should respect the quiet nature of the Fairfield residential neighborhood to the north.

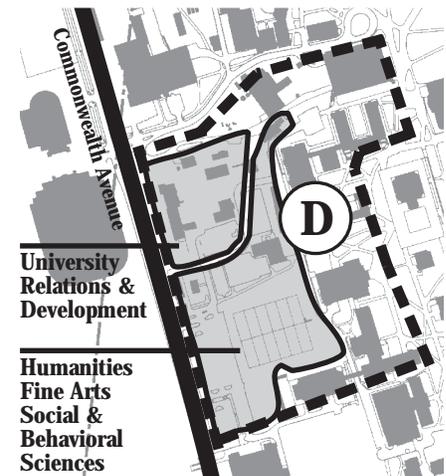


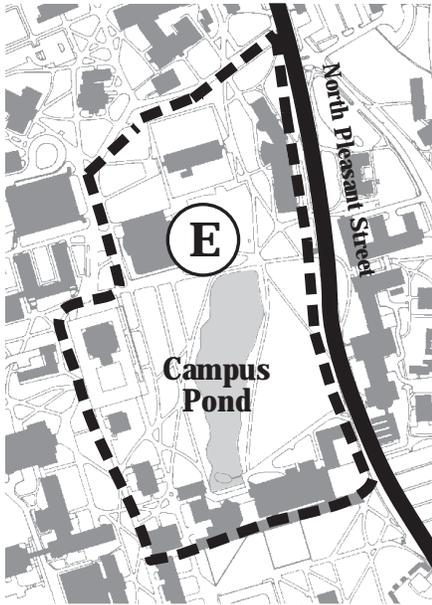
Area D: Commonwealth Avenue

Area: 38 Acres
Potential Infill: 16 Acres

The Commonwealth Avenue Area is the western edge of the campus core overlooking the Berkshire foothills. Because the western edge is defined only by Boyden Gym, parking lots and the old barns, it gives the appearance of the campus' "back door." This area currently supports academic use by the Colleges of Social and Behavioral Sciences and Humanities and Fine Arts along with administration and recreational uses. Many of the current buildings were constructed prior to 1930 and their conditions vary. The Area contains a significant amount of open space which, if developed, would provide needed facilities close to the academic core of the campus – as well as to improve the current "back door" image which exists along Commonwealth Avenue's open edge.

In this Area, it may be possible to convert all, or part, of the historic barns as the core of a new University Relations and Development cluster. This cluster would celebrate the historic character of the Grinnel Arena and the original barns, benefit from close proximity to the Mullins Center, and would provide sufficient space for an Alumni Center, Development Office, and Government and Media relations. A second cluster of development for academic facilities would include the future academic needs for the Colleges of Humanities and Fine Arts and Social and Behavioral Sciences. Infill development in this area provides an opportunity to provide a strong edge to Commonwealth Avenue and to develop a strong north-south pedestrian corridor for the western side of the campus core. As buildings are located along this corridor, major new open spaces should be created and significant views to the west should be maintained. Included in the plans for Area D should be clear system of pedestrian routes linking the Mullins Center to the campus core. The Area's 16 acres offer a significant amount of space (nearly 700,000 square feet) for accomplishing these goals.



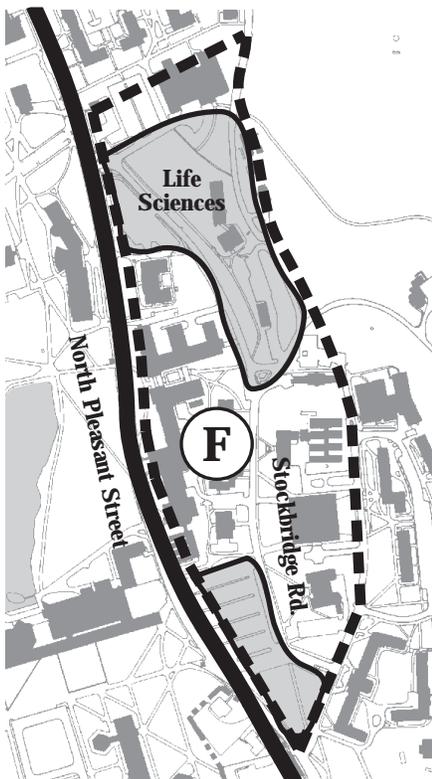


Area E: Campus Pond

Area: 33 Acres
Potential Infill: none

Area E contains the Campus Pond and the open space surrounding it. As the geographic center of the campus, it is highly visible from all directions and has been noted in University-wide surveys as the favorite spot of the entire campus for students, faculty, and staff. Academic facilities and the Campus Center, Student Union, and Library border on each side of the Campus Pond area.

Possibilities exist for making this Area an “area of excellence” through enhancement of its lawn, trees, seating areas, walkways, and smaller plantings. A collaborative design, sponsored by the University Arts Council, has already been completed for the popular south terrace of the Student Union including plantings, seating and a site-specific sculpture installation by a noted artist. The pond should showcase the University’s Arboretum collection featuring wetland plants. Efforts should be made to retain the shape and location of the pond, and because of its significance in the University community, the Campus Pond Area should be preserved as permanent open space.



Area F: Stockbridge Road

Area: 35 Acres
Potential Infill: 12 Acres

The Stockbridge Road area is located in the central area of campus, along the base of Orchard Hill. As one of the oldest sections of the campus, many of its buildings along the historic road date to the early 1900’s. Despite their poor current condition, several of these structures are historically significant and serve as references to the University’s roots as an agricultural college. Orchard Hill and the Chancellor’s home tower above the area, and several landscape spaces, including the Rhododendron Garden, Durfee Garden (in progress) and Frank Waugh Garden (at Hills House) provide intimate places for pedestrians to gather. Plans and designs for Area F should retain the historic fabric of Stockbridge Road by creating infill which complements the historic buildings and trees. The creation of a clear north to south and east to west pedestrian corridor to match the north-south proposal included in the Durfee Garden plan.

Currently, Area F houses a mix of academic schools and colleges, including the College of Food and Natural Resources, Natural Sciences and Mathematics, the Schools of Public Health and Nursing, University Health Services, and dormitories. The Area’s 3 acres of open land could accommodate approximately 150,000 square feet of expanded development, the bulk of which should be targeted for use by the Life Sciences in conjunction with the rehabilitation of the Morrill Science complex.

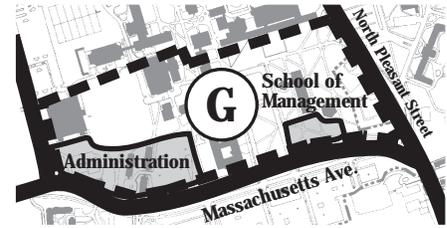
Area G: Massachusetts Avenue

Area: 40 Acres
Potential Infill: 8.5 Acres

The Massachusetts Avenue area marks the southwest corner of the campus core. The wide boulevard of Massachusetts Avenue, lined with London Plane trees, and the Haigus Mall provide a grand entry to the campus with Kevin Roche's Fine Arts Center resting at the terminus. Area G should provide a strong sense of arrival to the campus core from the southwest, and southeast while, at the same time, complementing the current design for Haigus Mall and Massachusetts Avenue.

Immediately to the south lies the Fearing Street and Lincoln Avenue neighborhood. Expanded development along Massachusetts Avenue must respect the privacy of this residential cluster, and address the resident's concerns regarding excessive vehicular and pedestrian traffic, and the nature of future campus development.

Current uses of the Massachusetts Avenue area include the main administrative offices for the University, the School of Management, and the Athletic Department (Boyden Gymnasium). Approximately 400,000 square feet of development space stands available on nearly 8 acres of land, which will accommodate the academic needs of the School of Management, as well as student services and recreational facilities. As these facilities expand, a sense of welcome must be retained at this "front door" to the University.



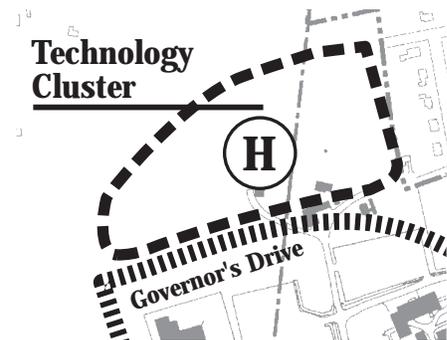
Area H: Technology Transfer Cluster

Area: 15 Acres
Potential Infill: 15 Acres

The Technology Transfer Area sits on the northern side of Governors Drive across from the Polymer Science complex and the College of Engineering. This location offers opportunities for making connections between these academic areas of the campus core, and future land reserves to the north.

Currently, the site houses service facilities, surface parking areas, and open space, and borders the Fairfield residential neighborhood to the north.

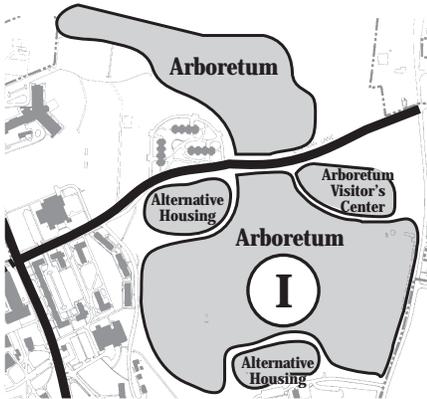
The Area offers 15 acres of open land and approximately 650,000 square feet of potential development space which will comfortably accommodate a future Technology Transfer Cluster. Architectural design and building location for the cluster, and landscape planting should add to the completeness of Governors Drive (See Area B) while, at the same time, respecting the privacy of the Fairfield residential neighborhood. The concept of the Technology Transfer Cluster is built on the notion of joint research and economic development activities between the University and the private sector. A distinct set of development guidelines, targeted for this specific area, must be developed to allow this concept to be planned and implemented.



Area I: Campus Arboretum Core Area

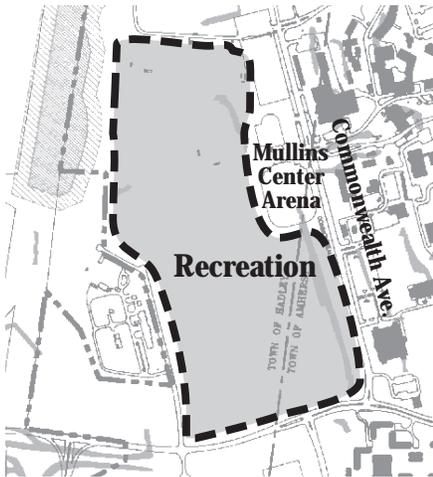
Area:

95.6 Acres



The Campus Arboretum core area is located on top of the Orchard Hill drumlin, overlooking the campus and the Berkshire foothills to the west. This area is proposed as the future core of a revived campus arboretum, supporting teaching, research as well as representing a major regional destination to tourists. This open space currently contains many historic trees, and diverse natural areas, and its 96 acres will easily accommodate many new arboretum-related uses. Currently, this land stands as open space holding the vestiges of an apple orchard planted during the days of the Massachusetts Agricultural College.

Development in this area should center around the concept of a campus arboretum into a major research, teaching, and aesthetic asset for the campus. This includes expanding the palette of plants and plant communities, and providing visitor and administration facilities for the arboretum. Integrated within the arboretum grounds should be University-owned housing clusters which are compatible with the neighboring residential areas.

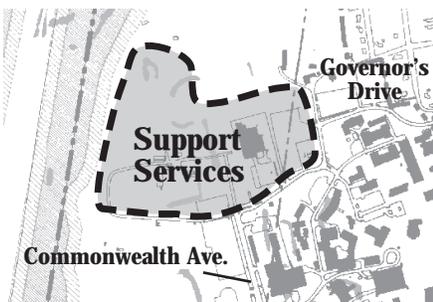


Recreational and Athletic Area

Total Acreage:

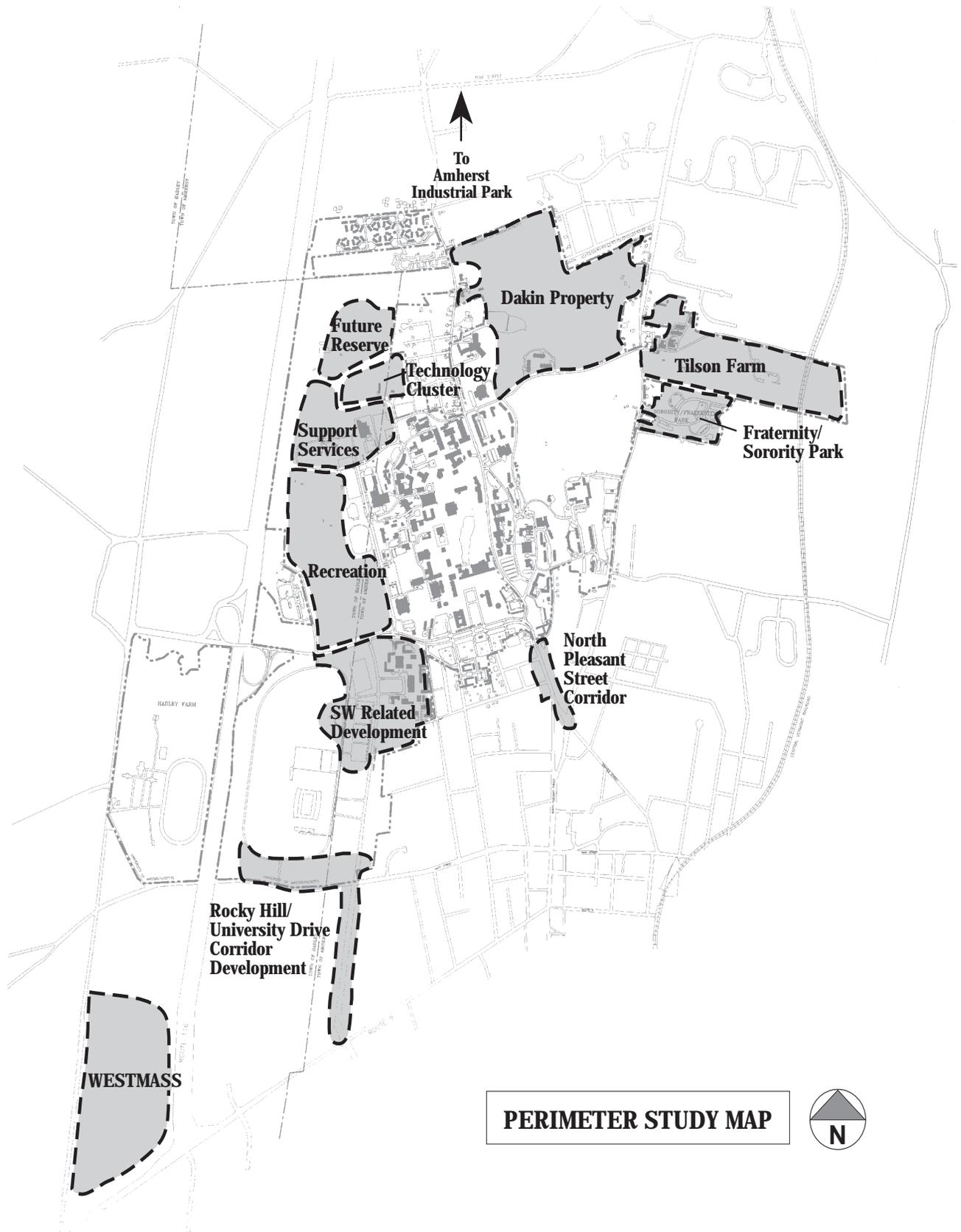
110.0 Acres

This area lies along the western edge of Commonwealth Avenue and encompasses many of the University's athletic fields. The newly constructed 11,000-seat Mullins Center Arena stands at the center. Visitors to the campus, arriving from the west, first see this open "lawn" area, making the site an important first impression area for the University. This "lawn" should be reserved to enhance this western entrance to the University and to maximize views from the top of Orchard Hill westward to the Berkshire foothills.



Support Services Area

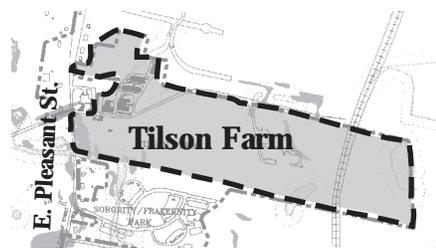
This area is located at the northwest corner of the campus outside of the campus core. Planning for this area should focus on reorganizing the support facilities and parking facilities, and siting and constructing a new co-generation plant.





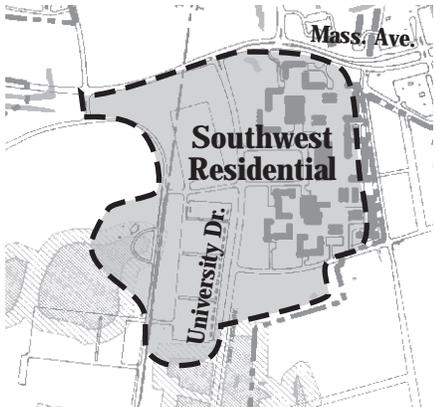
Dakin Property

The Dakin Property lies at the northeast corner of the campus, north of Eastman Lane, and west of East Pleasant Street. This property was a recent gift to the University by Janet Dakin. The site includes significant areas with severe environmental constraints including wetlands and steep slopes, which limit development opportunities. These constrained lands should be integrated with the Arboretum core area, located just to the south. The lands suitable for development should be reserved for future development.



Tilson Farm

Currently, rolling open space dominates this area with portions of the former Tilson Farm standing in the eastern portion and the Vermont Central Railway running along its eastern edge. The College of Food and Natural Resources has several facilities in this area including the motor pool, and poultry research facilities. The area includes the University's defunct power plant, currently not in use. Recently, the a joint Amherst-University recycling facility was constructed in the western part of the Tilson Farm. Future plans for this area should address the disposition of the power plant, the suitability of this area for locating additional support services, and the exploration of the full use of the railroad siding to service the University.



Southwest Residential Area

The Southwest Residential Area occupies some 35 acres and houses approximately 5000 students. This residential area includes dining facilities, a theater, and limited convenience-commercial establishments. This significant concentration of students must travel to other parts of campus for almost all their activities. Planning for Southwest should consider what elements are missing, preventing this area from functioning as a fully-serviced community. A specific plan for the area should be prepared which explores the idea of making the Southwest Residential Area an independent "village" with a diverse population, supported by adequate social, educational, security, and commercial services.



Fraternity/Sorority Park

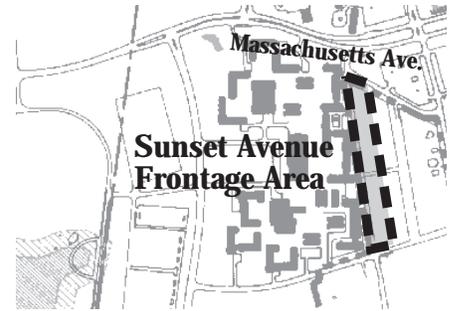
This area designated to house the University's Greek residences has succeeded in attracting only a small number of fraternities and sororities to date. As part of a strategy to reevaluate the best use of the North Pleasant Street corridor at the south gate of the University, relocation of existing Greek residences to the Fraternity-Sorority Park should be considered. The area, with three residences, presently one is currently used as a career center, can accommodate another nine houses with existing lots and infrastructure in place.

Community Development Issues

In addition to the infill study areas on the campus, there are other areas, adjacent to or near the University in which the University and the Towns share an interest in future use. Study groups are recommended for these areas involving the appropriate parties to arrive at an appropriate plan built on a broad base of community and University support.

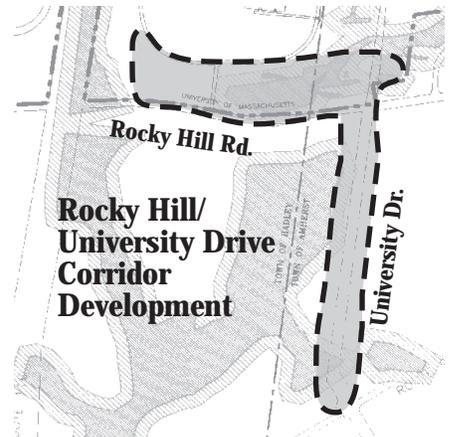
Area 1: Sunset Avenue Frontage Area

The residential neighborhood on Sunset Avenue which borders the Southwest Residential College is an area of existing conflict. The difference in density and building mass produce a most difficult transition. The Sunset Avenue Frontage area, currently includes only residential uses. A study group, comprised of representatives from the Town of Amherst and the University should consider if there are any appropriate alternative uses for this area that may relieve the existing conflict.



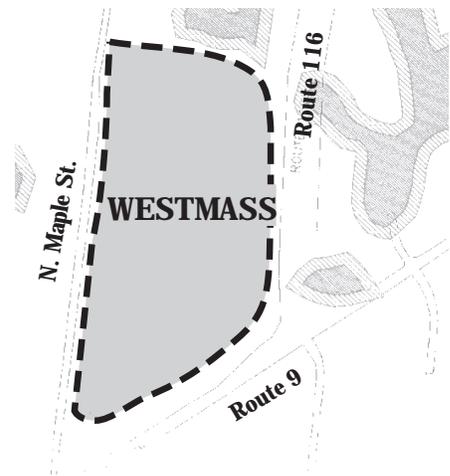
Area 2: Rocky Hill/University Drive Corridor Development

The University Drive corridor is a major entrance to the University from the south and west and is likely to experience significant development in the near future, based on available land and zoning. The University and the Towns of Amherst and Hadley should review the development potential of this area, and consider options for appropriate and well designed commercial facilities, including parts of the University's land on Rocky Hill Road.



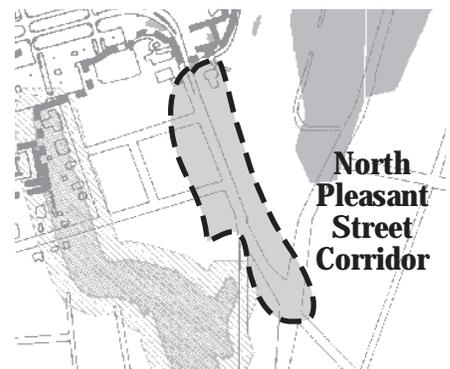
Area 3: Community Industrial and Research Parks

As the University becomes more involved in regional economic development and start-up industries, land will be needed for research and development. At present there are two major areas targeted and zoned by the Towns of Hadley and Amherst. In Hadley, there is an 80 acre parcel in close proximity to the University and to Route 9, known as the Westmass parcel. In North Amherst, the Town has designated the Amherst Industrial Park and zoned it for industrial development. The University should continue to work with both towns to develop a strategy for attracting appropriate University-related development to these areas.



Area 4: North Pleasant Street Corridor

This corridor between the South Gate of the University and the intersection of North Pleasant and East Pleasant Streets, should be reviewed to determine what the best uses are from the Town's and the University's perspectives. The current uses, mostly fraternities and sororities, may not represent the best use of this valuable and strategically located corridor which links the University with downtown Amherst. A study committee with representatives from the Town of Amherst, the University, and the fraternities and sororities should review options and prepare suitable proposals for the consideration of all affected entities.





5

CHAPTER



Strategic Recommendations

The vision, goals and objectives, and concepts articulated in this plan are dependent on the realization of the strategic recommendations. These recommendations may be realized in one of three possible forms; specific actions to be funded and implemented, policies to be developed and adopted, and areas in which further study is warranted. The recommendations are organized in three time frames; short term – to be completed by 1995, medium term – to be completed by 2000, and long term – to be completed by 2010. The recommendations are also organized into the four systematic themes used throughout the plan as follows.

1. Circulation and Parking

By 1995

- Develop a University-wide Parking Management Plan that meets the needs of the Mullins Center.
- Eliminate service vehicles from primary pedestrian paths.
- Make connections to the Five College Bikeway system.
- Create a pedestrian environment that minimizes conflicts with vehicles at road crossings and service drives.

By 2000

- Realign Governor's Drive.
- Close Stockbridge Road to through vehicular traffic and designate for pedestrian use.
- Remove non-handicapped parking spaces from the campus core.
- Develop a multimodal transportation system and multimodal center.
- Develop and implement a transportation plan with Pioneer Valley Planning Commission to comply with the federal Clean Air Act regulations.

By 2010

- Reduce demand for parking through established park-and-ride facilities in neighboring communities.

2. Campus Land Use and Infrastructure

By 1995

- Adopt a policy that future development be guided by a strong infill concept within the existing campus core to strengthen the campus' overall physical organization, movement systems and landscape open spaces.
- Establish working groups to explore development programs and options in the defined study areas. Findings due by 1995.
- Adopt a policy to site expansion adjacent to corresponding Colleges.
- Adopt a policy to site economic development related activities outside the campus core.
- Reserve major lands to the North for future needs (beyond 2010).
- Begin comprehensive facilities audits starting with older buildings in need of major repair or targeted for renovation.
- Conduct an engineering study to delineate a primary utility system masterplan.
- Develop housing strategies to diversify offerings for students to be competitive with peer institutions.
- Meet moderate income housing goals for campus and community for student, staff and faculty housing opportunities.
- Select initiatives for new academic development to be implemented from 1995 - 2010. Update space needs for each college and school.

By 2000

- Program high priority academic developments, identify funding and establish target construction dates.
- Formulate capital campaign to realize major construction projects such as Alumni Center, Chapel renovation and Multicultural Center.
- Complete construction on new co-generation plant.

By 2010

- Begin preliminary planning for lands to the North.
- Begin second decade of academic and support development.

3. Campus Open Space and Recreation

By 1995

- Remove or fix negative campus icons such as the fence around library and the Fine Arts Center reflecting pools.
- Adopt a policy to identify "areas of excellence" where capital improvement funds can be focused to create a positive campus image.
- Preserve and enhance the quality of the landscape surrounding the Campus Pond - bounded by North Pleasant Street, the Fine Arts Center, the Chapel and library, and the Campus Center - and designate it as permanent open space.

-
- Develop a plan to expand the historic arboretum and add an Arboretum Visitors Center.
 - Develop planning and design guidelines for the campus landscape and pedestrian circulation system.
 - Adopt a policy to maintain the intramural fields for recreational use to preserve visual access to the core campus and Mullins Center from Route 116 interchange and University Drive.

By 2000

- Develop a Recreation and Athletic Facilities Master Plan that ensures diverse recreational opportunities and facilities for all residential areas and varsity sports.
- Establish gathering places for people (nodes) by implementing the Student Union Plaza design and designating historic Stockbridge Road as a pedestrian corridor.
- Establish a clearer sense of entry into the campus.
- Establish trails for cross country running and skiing.

4. Economic and Community Development

By 1995

- Study the impacts of establishing private commercial/retail activities on campus and document appropriate guidelines.
- Adopt a policy to develop lands on the campus edge with land uses that are compatible with existing community uses.
- Investigate the redevelopment of Southwest Residential Area as a fully serviced urban community.

By 2000

- Develop and implement a strategy to relocate sorority and fraternity organizations to the Fraternity/Sorority park off East Pleasant Street. Develop the North Pleasant Street corridor linking the campus with downtown Amherst.
- Work with owners of off-campus research/industrial parks to promote linkages with campus research.

By 2010

- Develop an efficient technology transfer apparatus that facilitates spin-off economic development enterprises in the surrounding communities.
- The University realizes the vision.

Photo and Illustration Credits

Richard Wilkie—cover, chapter headings, and page 23 (right)
University of Massachusetts Photographic Services—pages 2, 5,
9, 11, 12, 13, 16, 18, 23 (left), 24, 28, 32, 33, 34, 35, 36, 37, 38,
39 (top and middle), 40, 41, 42
John Martin—page 3
University of Massachusetts Arts Council—page 27
Massachusetts Daily Collegian—page 29
Jack Ahern—page 39 (bottom)