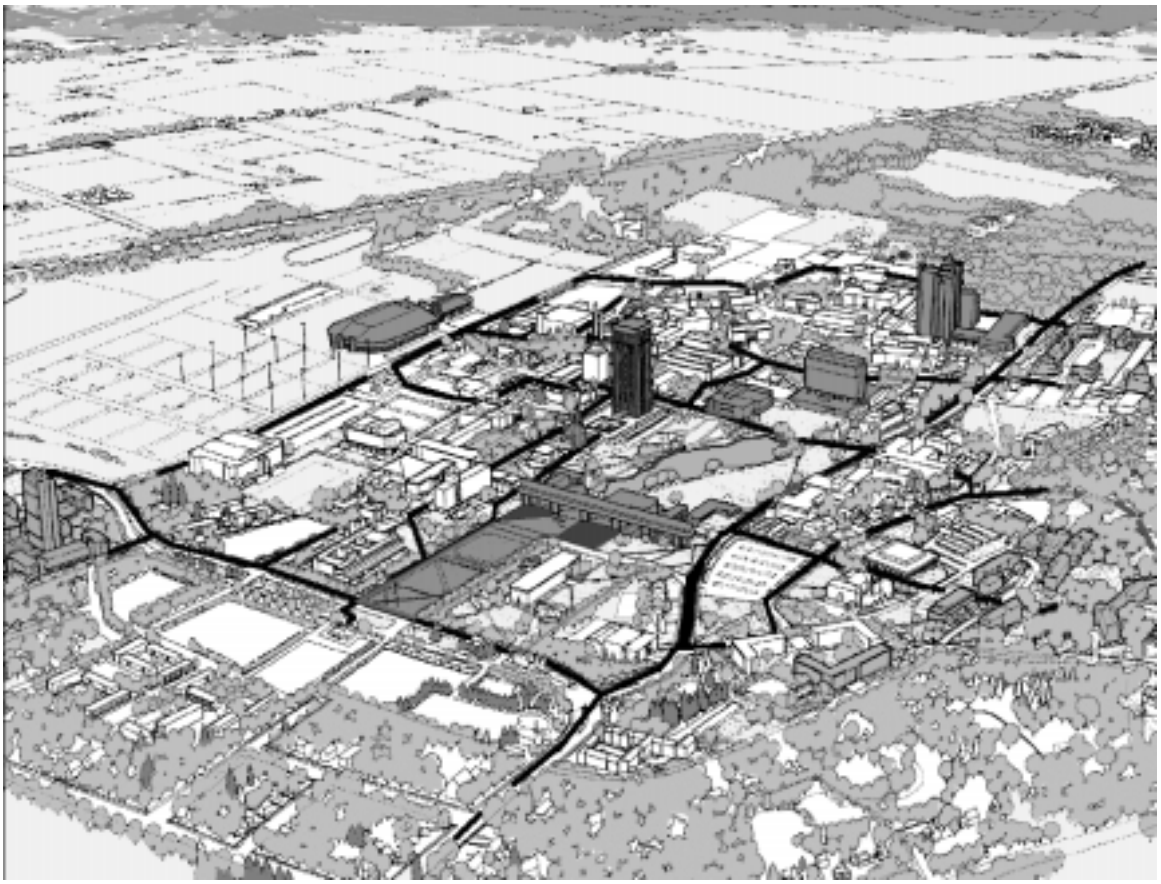

A Landscape for Learning

A Plan for Enhancing the Physical and Visual Quality of the Campus

University of Massachusetts at Amherst

December 1995

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A Landscape For Learning

A Plan for Enhancing the Physical and Visual Quality of the Campus

Table of Contents

Campus Landscape Plan

Executive Summary

The UMass Campus can become a Landscape for Learning.

Vision

The compelling vision for this plan embraces an image for the campus that intends to attract the finest students and faculty; creating a place where the quest for knowledge is enhanced by the quality of life and where the campus can become a “Landscape for Learning”. In addition, the campus will be a regional destination that attracts national conferences and visitors from around New England.

Background

The Campus Physical Master Plan was completed in 1993 through the joint efforts of the Office of Space Management, the Campus Physical Planning Committee, and the Department of Landscape Architecture and Regional Planning. The "Landscape for Learning Plan" is designed to set a direction for executing the three strategic goals of the Master Plan:

- Develop a campus image that visually emphasizes the University of Massachusetts Amherst Campus as the Commonwealth’s flagship campus, the leading public university in New England with a strong national and international reputation and an image that complements the University’s unique setting in the Connecticut River Valley.

- 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 also function as an economic stimulus for the Commonwealth.

- 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, while preserving and enhancing the environmental quality of the campus.

The campus should provide a high quality living environment for students.

The 1993 Campus Physical Master Plan recommended that the campus adopt policies for infill development, the integration of new academic facilities, and improvements within the campus core. This 1995 Landscape for Learning Plan contains specific objectives and corresponding policy recommendations to support the implementa-

tion of these goals. These policies would:

- Maintain the campus' rural setting by filling vacant spaces within the campus core rather than spreading development to the outer limits of the University land.
- Upgrade and complete the campus core's edges, specifically the western and northern edges, so that the campus welcomes visitors at all of its entrances.
- Create an improved sense of orientation for campus visitors, students and staff, by defining clear pedestrian corridors and human-scaled spaces.
- Centralize infrastructure, thereby reducing costs.

Objectives

The following objectives established the direction for the Campus Landscape Plan:

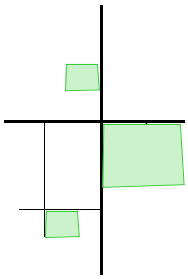
1. Establish a Framework Plan for the campus landscape by defining a Pedestrian Circulation System which unifies the complex physical layout of the campus.
2. Establish a comprehensive Open Space System, incorporating developed and managed natural open spaces, which provides the foundation for implementing all future development.
3. The Waugh Arboretum will provide an organizing theme for the campus landscape which defines the quality and character of open spaces, supports teaching and research, and promotes the historical and cultural image of the University.
4. Promote a pedestrian-friendly campus environment by paying attention to the quality and safety of the pedestrian experience and by directing cars and service vehicles to the perimeter of the campus.
5. Utilize the Campus Landscape Plan as a guide in identifying appropriate sites for future infill development within the campus core. New buildings should be viewed as elements that define, reinforce and strengthen spaces and corridors.

Methodology

The initial master plan research, campus survey results and 1993 Campus Physical Master Plan strategic goals were reviewed to formulate specific objectives intended to improve the image of the campus and promote a pedestrian friendly environment.

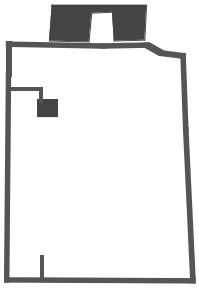
A series of four monthly workshops, involving a broad constituency of the campus community, was held in the Spring of 1995 to address each of the components of the plan. The initial objectives for the Campus Landscape Plan were presented and accepted at Workshop I.

Framework Concept Diagrams



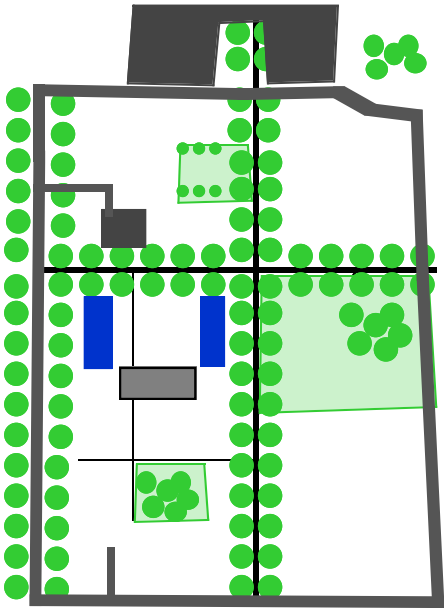
Pedestrian Corridors (1) and Open Space(2)

Arboretum (3)



Vehicular Circulation and Parking (4)

Development Patterns and Infill (5)



Composite of diagrams, the five major components for guiding campus landscape development.

They dealt with the five components: Pedestrian Circulation, Open Space, Waugh Arboretum, Vehicular Circulation and Parking, and Infill Development Patterns. Based on input and comments provided by Workshop I participants, a set of objectives was adopted to provide direction for subsequent workshops.

The focus of Workshop II was to review proposed policies intended to support each objective. At Workshop III specific criteria and strategic recommendations for each component of the plan were presented and reviewed. Thus, a specific objective, policy standards and strategic recommendations for proposed actions were adopted for each of the plan's components.

For Workshop IV, landscape prototypes were developed to illustrate the implementation of strategic recommendations.

Intent

The intent of this document is to establish a "Framework " within which physical development can occur by defining major pedestrian corridors, open spaces, primary vehicular and service circulation routes and potential infill and development sites. Landmarks and buildings which are significant origins and destinations are integral elements of the plan to provide legibility to the campus. Improving campus open spaces and pedestrian circulation corridors are two critical focus areas for research, planning and design efforts in this plan.

Plan Components

The study identifies five major components for guiding campus development. The central idea is to identify major campus origins and destinations and to connect them with safe, interesting pedestrian routes, enhanced by tree-lined boulevards. Open spaces at the intersections of major corridors and at campus landmarks will be designated for campus image improvement. New service routes will be established to minimize pedestrian and vehicular conflicts, and infill areas will be identified. This concept is illustrated in the series of diagrams on the left.

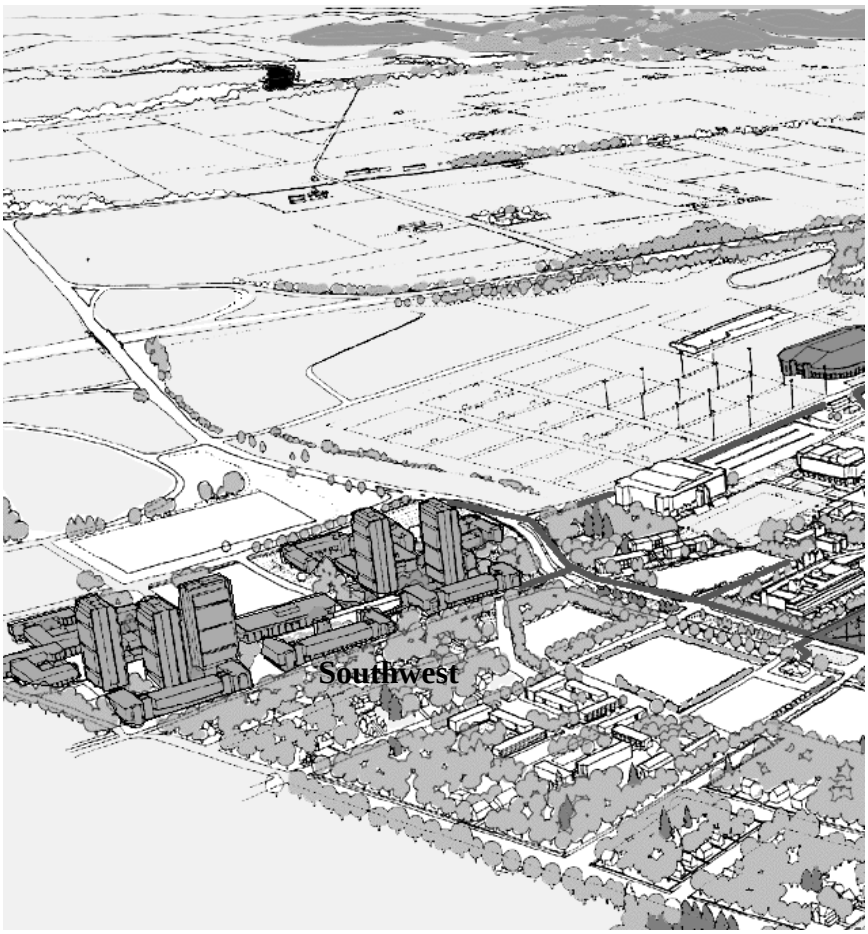
1. **Pedestrian Circulation System**
Delineate a pedestrian circulation system by connecting important campus origins and destinations identified as *Landmarks* is the backbone of the framework plan to unify the complex physical layout of the campus. The ten *Landmarks (see pages 4 and 5*) consist of the five residential areas: Orchard Hill, Sylvan, Northeast, Central and Southwest, the Fine Arts Center, W.E.B. DuBois Library, Linclon Campus Center and Student Union, Lederle Graduate Research Center, and the Mullins Center. Important cultural, social, and academic destinations are located along this primary pedestrian framework: The Chapel, Memorial Hall, South College, Whitmore Administration Building, Goodell, Robsham Visitor's Center and academic quads.

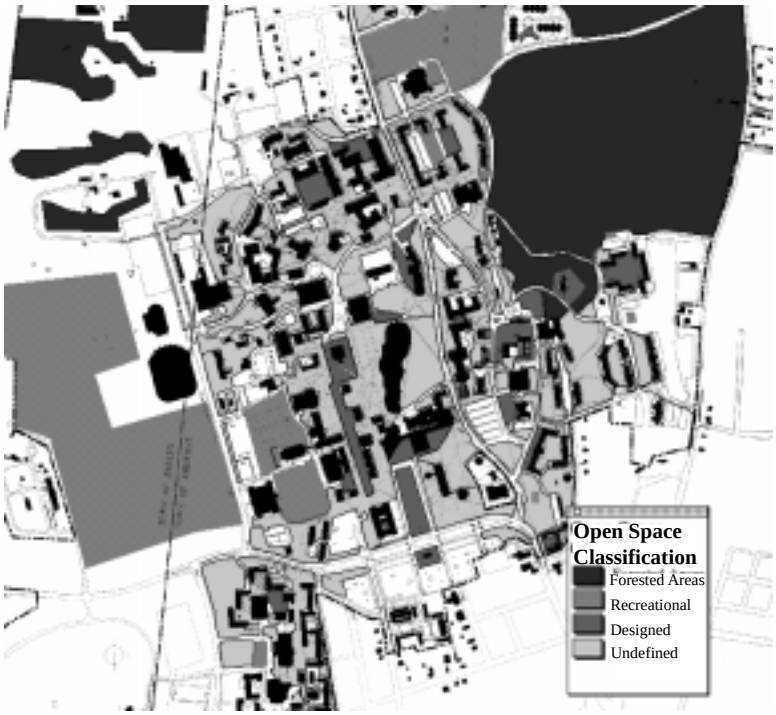
The development of a clear, direct pedestrian framework, which minimizes pedestrian conflicts, is the thrust of the Landscape for Learning Plan. The implementation of the plan offers opportunities to focus class gifts and memorial donations on segments of the pedestrian frmaework and on developing gathering spaces at the intersections of major paths.

2. **Open Space System**
The Open Space System defines areas along this pedestrian framework comprised of *Landmark* Spaces, areas of historical and cultural significance, prominent viewsheds and natural features. Designating certain areas as "Areas of Excellence" and "significant open spaces which need improvement" are strategic planning tools for implementation and fundraising.

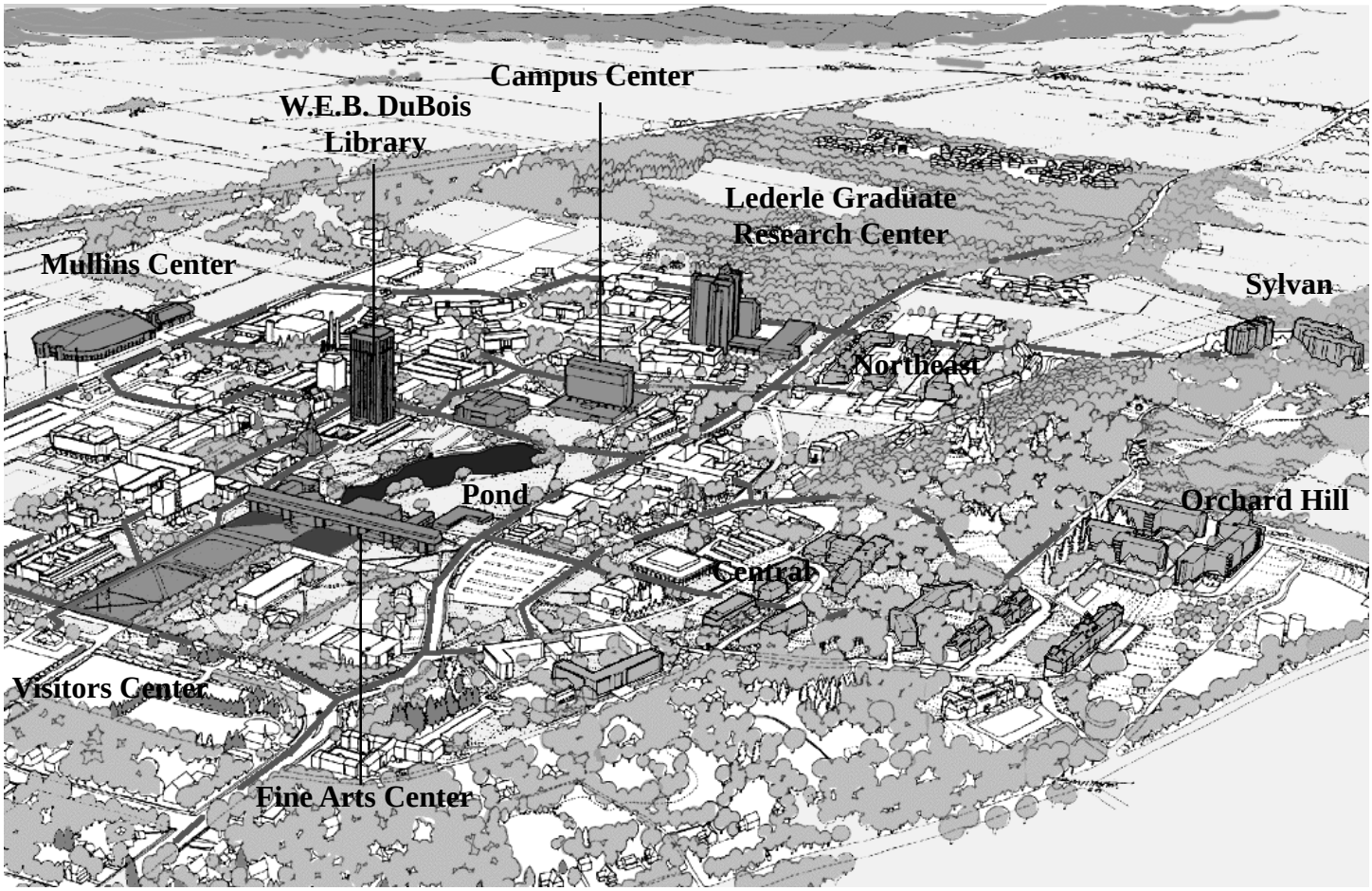
The revitalization of the Campus Pond is the first "Area of Excellence" to be pursued. The Student Union and Campus Center open spaces are the second "Area of Excellence" recommended for improvement to create a significant and highly visible positive campus image.

Equally important is the need to preserve and enhance the historic and cultural elements of the campus, such as the Chapel, the historic buildings and views of the Pioneer Valley, all of which are integral to the campus' unique character.





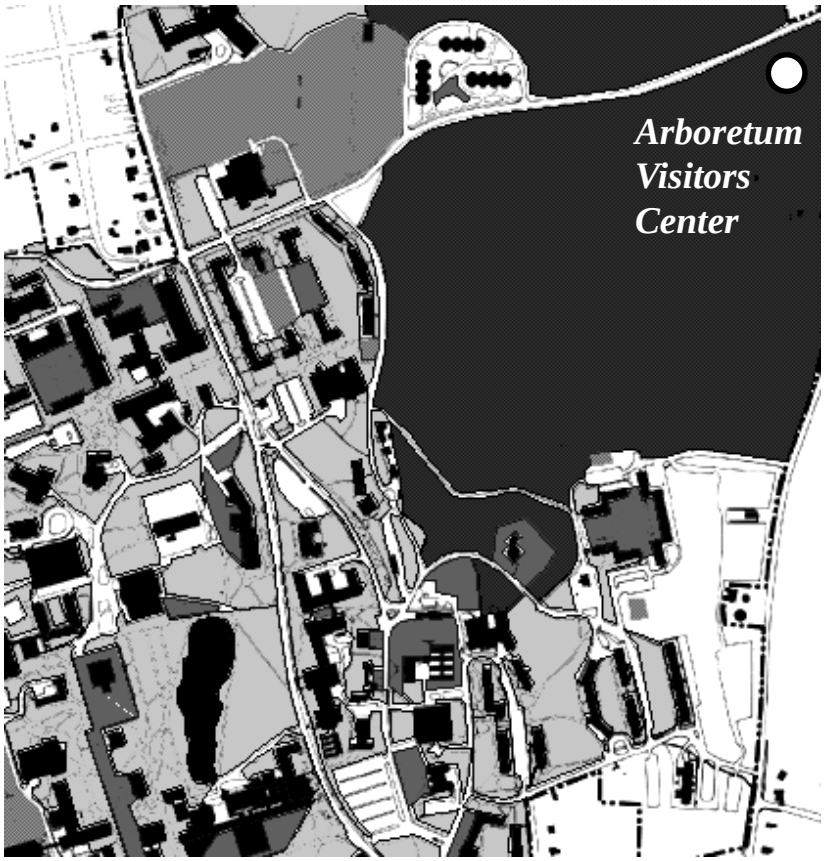
Undefined open spaces on campus are represented by the light gray areas on the map.



3. Waugh Arboretum

The Waugh Arboretum will be re-established and used as the theme to guide landscape development. President Baker saw the importance of designating a portion of the campus as an Arboretum in 1944, both to recognize the efforts of Frank A. Waugh in bringing a variety of plant specimens to the campus and as a way to preserve indigenous New England plants.

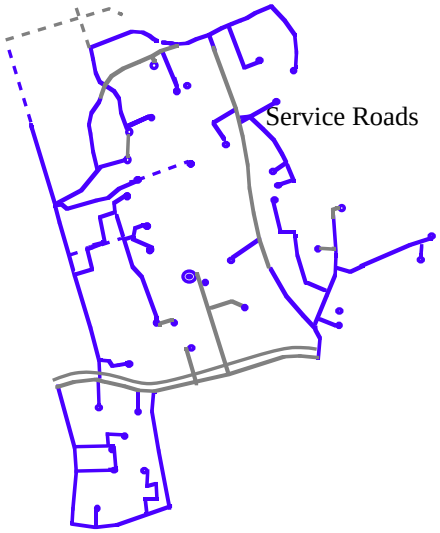
An Arboretum Master Plan will designate the entire campus as an arboretum and build on existing plant communities. The arboretum will provide the theme for future landscape planting which will define pedestrian corridors and open spaces and support teaching and research. A planned Arboretum Research and Visitors Center on Orchard Hill will provide a teaching and research asset for the University and a regional destination for visitors, supporting the concept of a "Landscape for Learning".



4. Vehicular Circulation and Parking Systems

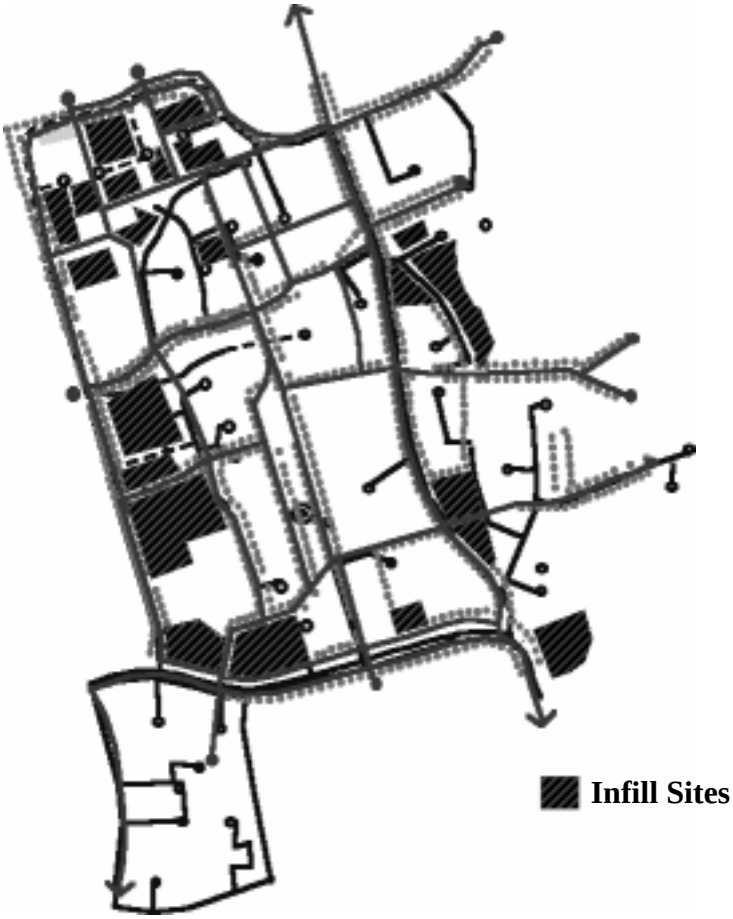
The Vehicular Circulation and Parking Systems are critical components for creating a pedestrian friendly environment by establishing auto-free zones, designating service and delivery access points and moving surface parking areas to the campus perimeter. Separating vehicular routes from pedestrian paths and limiting service access points is the first step in implementing a pedestrian zone for the campus core.

The cooperation of the Parking Office, Central Receiving, Mail Services and Physical Plant are integral to the success of the Campus Landscape plan. Funding a study to establish a bicycle lane network within the campus, which connects to the five-college bicycle system, is also a vital step toward producing a pedestrian friendly environment.

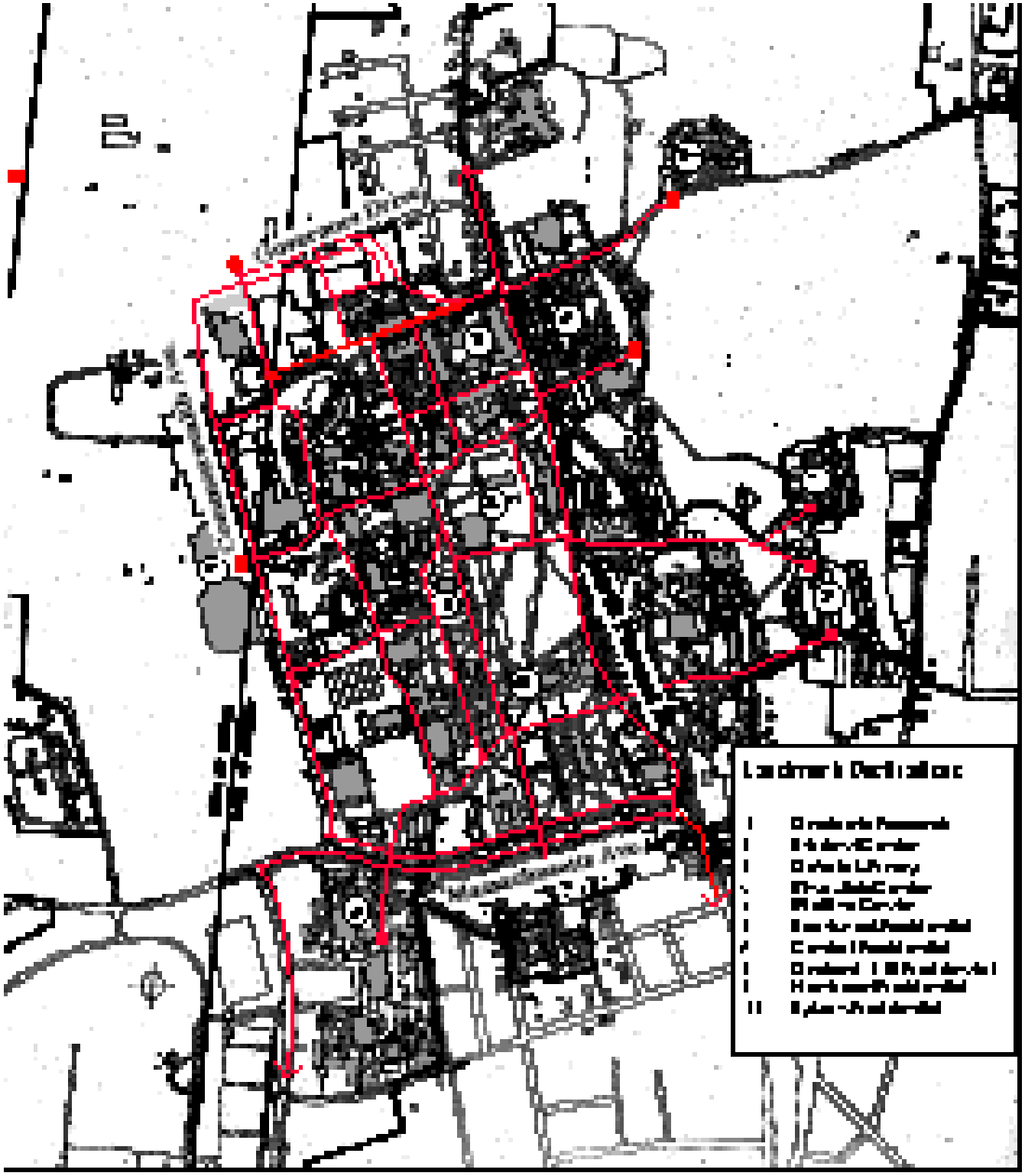


Vehicular Service Framework

5. **Infill Development Patterns**
   Infill Development Patterns should be viewed as elements that strengthen and reinforce the open space and pedestrian framework. By appropriately siting future buildings in close proximity to existing structures according to the framework plan, new spaces will be created that improve the open space system. Equally important is the need to designate a portion of each new building's budget to design and construct these spaces.



The Composite of the pedestrian, open space and vehicular circulaton systems indicates sites for infill development.



Pedestrian Framework Linking Important Landmarks

Pedestrian Circulation System

Background

Pedestrian circulation was identified in the 1993 Master Plan as one of the components most in need of improvement to provide visitors, prospective and enrolled students, and faculty and staff with an improved sense of orientation.

Visitors to the UMass Robsham Visitors Center receive a campus map locating buildings, but many find locating the Campus Center, Admissions Office and other buildings difficult since clearly marked pedestrian and vehicular routes are not identified on the campus map. Visitors also complain about the lack of directional signs within the campus core.

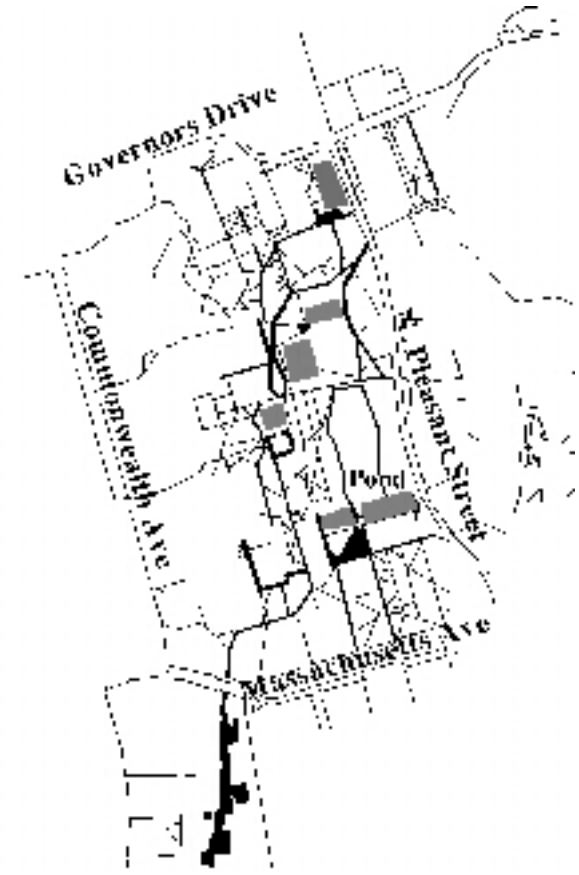
The current experience of walking across the UMass campus consists of navigating a maze of disconnected paths, many in disrepair, while dodging service and maintenance vehicles that use the same pedestrian paths as delivery routes.

There is very little consistency to the path system; wide paved routes merge into narrow paths. The major north-south corridor which passes in front of the library narrows and jogs before linking with the Student Union.

Where major paths do intersect, there are no clearly defined meeting or gathering areas. The paths which come together between Whitmore and Herter along the north-south corridor are an example of an ill-defined space created by a maze of paths.

When the W.E.B. DuBois Library was built, a number of construction paths were paved between the Student Union and the Fine Arts Center, duplicating traffic flow and adding to the confusion of paths. A similar situation occurs on the north east side of the Campus Center, between Goessmann and Hasbrouck, where a maze of paths criss-cross the area. There is an inordinate amount of blacktop at this crossroads of student activity. The GRC courtyard, Mullins Center, Silvio O. Conte entry, the Hills entry and Curry Hicks Cage entry provide the best examples of the use of paving materials other than asphalt, to create an attractive sense of arrival and identity.

Visitors to the campus are often perplexed by the width of combined paths and service routes which appear to be roads, and inadvertently drive into the campus core. The driveway at the Fine Arts Plaza is not clearly marked for service or emergency vehicles and visitors inappropriately enter the campus at this point.



The existing path system is unorganized and confusing

Routes from residential areas to the campus core are not clear and direct, but jog around buildings, through parking lots and down treacherous paths. The east-west pedestrian route, from Morrill Courtyard to Orchard Hill, is one such route where students climb a rocky path to their residence hall. A paved road exists as an alternative, however it curves around the hill, thus students choose the most direct route which is frequently described as a "goat" path. The Durfee Garden provides an excellent example of a well designed gathering space along this route.

Several decades of construction and the Dutch Elm disease destroyed a number of treelined roads with pedestrian sidewalks, such as along North Pleasant Street, diminishing the pedestrian experience through the center of campus

The sidewalks along Massachusetts Avenue and the two paths on either side of Haigus Mall are the best examples of tree-lined walks on the campus. Each walk is planted with an allee of trees which provide the basis for an Arboretum quality environment.

The numerous paths by the Campus Pond should be consolidated into a clear pedestrian system.

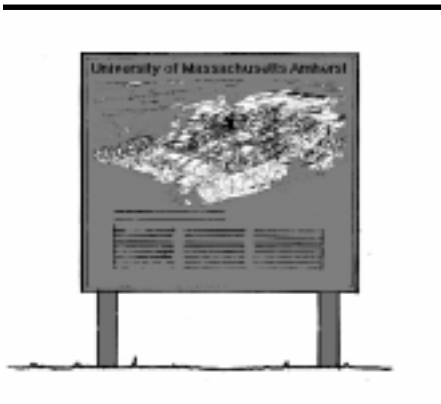
Students choose the most direct routes creating "Goat Paths" as shown in front of the Lincoln Campus Center.

Objective

Establish a Framework Plan for the campus landscape by defining a Pedestrian Circulation System which unifies the complex physical layout of the campus.

The purpose of this study was to analyze the existing pedestrian circulation routes, identify major pathways between important origins and destinations, i.e. residence hall areas, academic districts, and student service areas, and to designate primary circulation corridors which could provide the framework for the circulation system. To provide clear, legible pedestrian routes was the primary goal, followed by the development of policies, standards, and design recommendations to implement the framework plan.

Sidewalks in front of Whitmore are the best example of well-designed tree lined walks on campus.

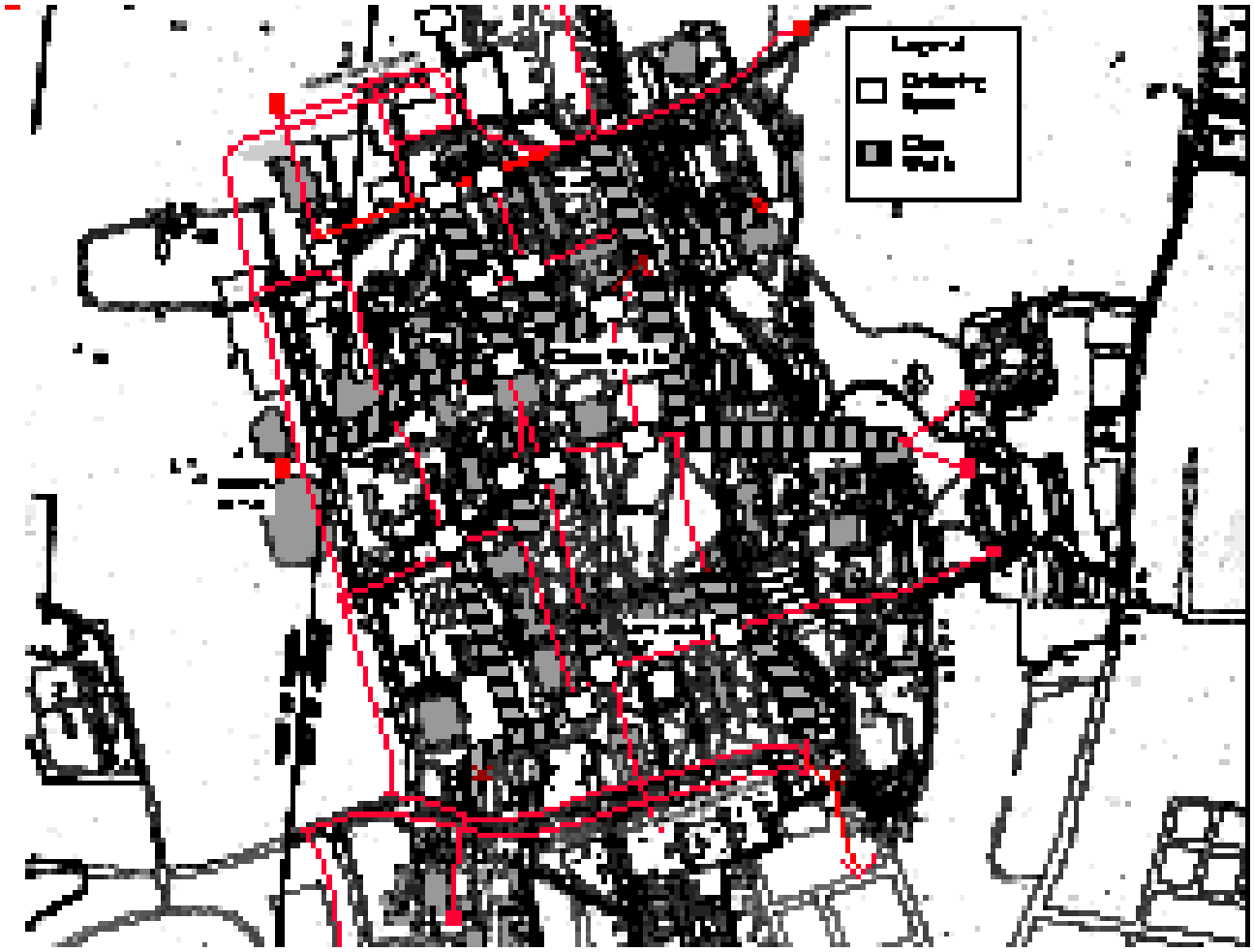


Expand the pedestrian Orientation System with "You Are Here" Signs.

Policies

1. A hierarchical path system will be implemented, linking important landmark destinations for student activities and support facilities to achieve a well organized, discernible pattern of walks (e.g. Student Union, Lincoln Campus Center, DuBois Library, Fine Arts Center, Lederle Graduate Research Center, Mullins Center and the five residence halls).

2. A pedestrian orientation and information system will be expanded through the current Unified Directional Signage Program developed by Facilities Planning.



Gathering Spaces will be established at key intersections. Class gifts can focus on implementing"Class Walks"

Recommendations

- Adopt the proposed Pedestrian Framework Plan defining major pedestrian corridors that provide linkages between Landmark Destinations.

- Designate major pedestrian intersections as areas of special interest for which designed gathering spaces will be provided.

- Designate sites along the major East-West pedestrian route from the Student Union through Morrill Courtyard to Orchard Hill for campus image improvement.

- Implement segments of the pedestrian framework system by focusing class gifts and memorial donations on locations identified as areas of special interest, pedestrian system intersections and campus image improvement projects.

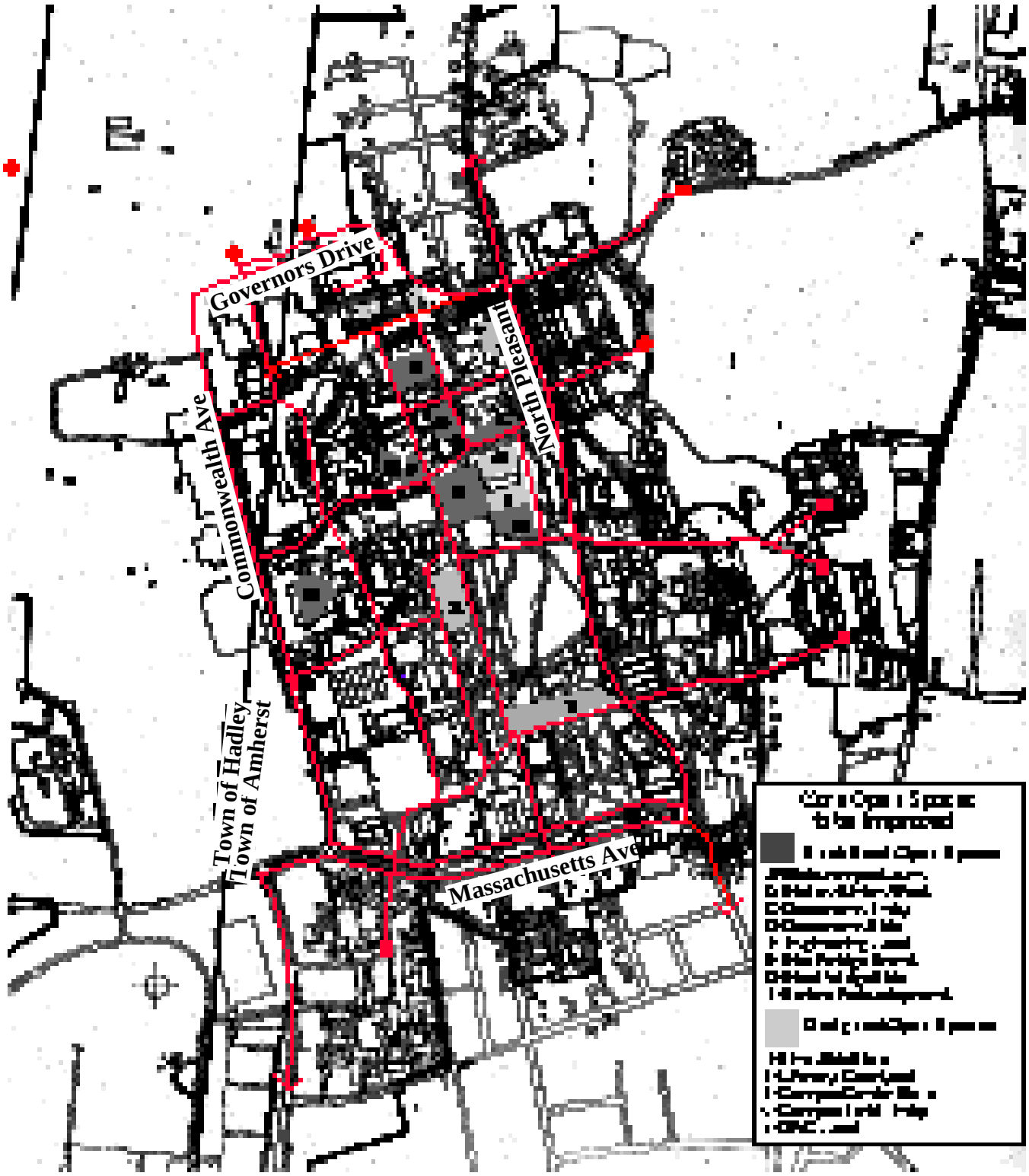
- Endorse the development of design guidelines which specify a landscape palette of paving materials, site amenities and planting elements for pedestrian walkways and intersections, designed landscapes and building entries and courtyards.

- Develop a Campus Map which provides orientation information from the visitor's center and other key areas of campus. Coordinate these efforts with Physical Plant to complement the signage program.

Student Union spaces will be improved as part of the Campus Pond Project to become the next "Area of Excellence"

Endorse the development of design guidelines defining planting elements along pedestrian walkways

- Expand the sign program to include signs indicating pedestrian paths vs. vehicular/service routes.
- Selectively remove unnecessary paths which are not part of the framework plan and convert them to designed landscapes.
- Improve the pedestrian route along Commonwealth Ave to the Mullins Center.
- Separate bicycle traffic from pedestrian paths to the extent possible.



Campus Core Spaces that need improvement

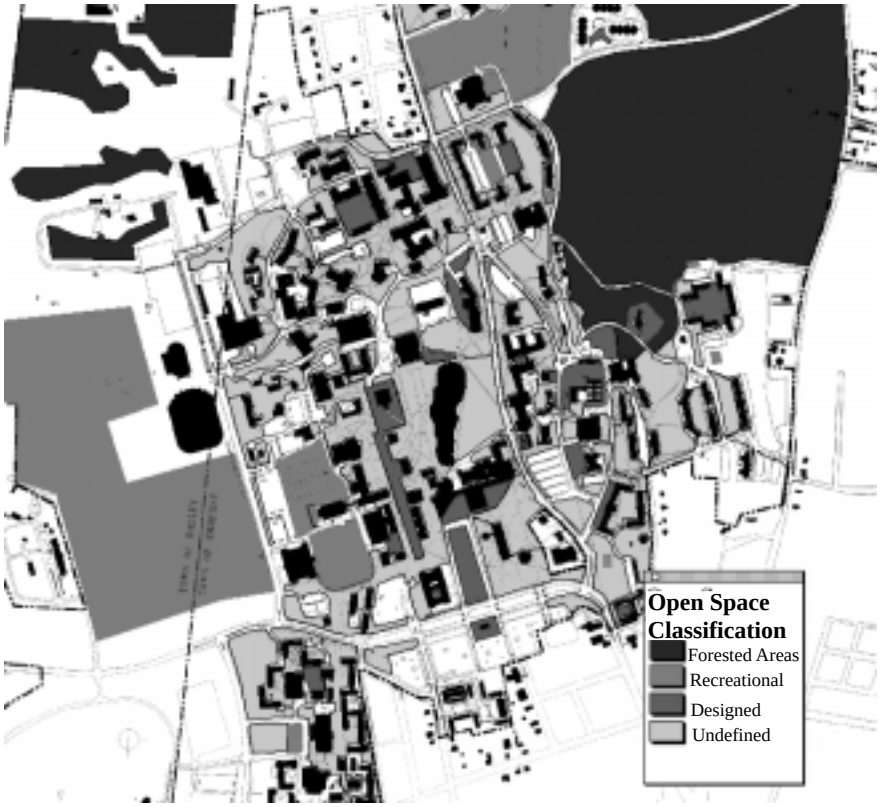
Open Space System

Durfee Garden is an excellent example of a designed open space.

Background

The improvement of campus open spaces was another component identified by the 1993 Campus Physical Master Plan as vital to enhancing the physical and visual quality of the campus. The aesthetic character of the campus and the ability for active and passive recreational opportunities are critical factors which influence prospective students' college choices as indicated by the 1984 Carnegie Foundation for the Advancement of Teaching Report. (Change: Trendlines, Jan/Feb 1986) Based on a survey of prospective college students to determine how they selected a college, 50% listed the campus visit as the decisive factor and 62% reported that the appearance of the grounds and buildings influenced them most during these campus visits.

An analysis of the open spaces on campus reveals that most of the spaces within the campus core have not been designed in conjunction with building development, but are unused land parcels that are termed "unimproved" . Spaces around the Student Union and the Lincoln Campus Center, spaces between Herter and Whitmore, and the spaces between the Engineering Quad and Goessmann represent such undefined open spaces. The spaces between and around these buildings have not been addressed as part of a coherent campus plan which identifies spaces associated with academic clusters or student activity centers. In contrast, the Haigis Mall, Lederle Graduate Research Center and Silvio O. Conte Courtyards, Morrill Courtyard, the Fine Arts Center plaza, Mullins Center courtyard and Durfee Garden are examples of designed open spaces.



The campus is dominated by undefined open spaces which are represented by the light gray areas on the map.

The courtyard between the high-rise and low-rise Lederle Graduate Research Center has recently been effectively planted, however, this inviting space does not provide a seating area. The Silvio O. Conte Polymer building courtyard is a good example of a new building with a thoughtfully designed entry that provides a gathering space including ample seating.

The Mullins Center provides several benches at the entry, but not nearly enough to accomodate people meeting for an event. The Morrill Courtyard and Fine Arts Center Plaza do not provide seating areas, although the concrete edge of the reflecting pond provides a low bench for people waiting at the bus stop.

The Student Union plaza on the south side facing the pond will be redesigned as part of the Campus Pond Project to provide an improved gathering area. However, the other spaces around the Student Union i.e. the main entry and the Metawampee Lawn, do not provide seating areas and are not designed to accommodate the large number of students meeting at this crossroads of the campus. The Lincoln Campus Center terraces and steps are also prime gathering spaces; however, students are deterred from using this area due to the strong, unshaded southern exposure. The sloped grassy area facing the east entry of the Lincoln Student Center has become an inviting social area. The large expanse of asphalt at the east entry does not complement the design of this entry node.

Some formal spaces for active and passive recreation have been designed within the Southwest and Orchard Hill complexes, however, most open areas within and around housing and residential areas have not been planned or designed for recreational and social gatherings. Existing recreational facilities in the Northeast and Southwest residence areas consist of either a single basketball court or a volleyball court, but do not provide any other facililities to accommodate a range of recreational activities. It is the many unimproved spaces that are currently being used for this function. Residents of the Orchard Hill area have established running paths in the undeveloped northeast areas.

The Engineering Quad is a defined Open Space that is currently unimproved.

The Mullins Center Courtyard is a well designed open space, however adequate seating for gathering is not provided.

The Student Union South Courtyard will be improved as part of the Campus Pond Project.

The recreational space at the Northeast Residential Area consists of a single volleyball area. More recreational spaces should be provided.

Formal recreational open spaces exist as part of the athletic complex behind the Mullins Center and adjacent to the gymnasium facilities, however, other recreational areas within the core, both formal and informal, have not been planned. Forested areas mainly exist on the Northwest section of the campus and will be preserved as part of the framework for the Waugh Arboretum.

Formal recreational areas should be preserved as open spaces.

Objective

Establish a comprehensive Open Space System, incorporating developed and managed natural open spaces, which provide the context and physical setting for implementing all future development.

The purpose of this objective is to identify unimproved spaces which should become formal or informal designed open spaces, to identify historic areas which should be enhanced or preserved, and to identify areas which should be managed natural spaces. The plan recommends targeting specific spaces as Areas of Excellence for which funds can be allocated to improve the campus image. The Areas of Excellence may be designed open spaces, historic areas or managed natural areas.

Whitmore Courtyard represents a well-designed open space.

Policies

1. A well defined system of designed open spaces adjacent to campus landmark destinations will be provided. (i.e. W.E.B. DuBois Library Courtyard, Student Union Terrace and Metawampee Lawn, Lincoln Campus Center entries, Fine Arts Plaza and Graduate Research Center Courtyards)

2. Funds will be allocated and fundraising prioritized to enhance Areas of Excellence, important locations on campus that are highly visible, and make them showpieces. (The Campus Pond being the first area targeted for enhancement)

3. Historic landmarks will be preserved.

4. Managed natural spaces and significant vistas where no development can occur except for receation will be designated for preservation and conservation to guarantee their long term protection.

5. Recreational open spaces will be maintained in close proximity to housing/residential areas. Jogging paths will be provided as a recreational and athletic component.

6. Intramural fields will be maintained for recreational use to preserve the positive image of the western edge of campus.

7. To the extent possible, remove "negative icons" from the campus core.

The Silvio O. Conte Polymer Research Building entry courtyard is a well defined open space for gathering.

The Campus Pond represents a managed natural area.

Seating Area at Sylvan Residential Hall.

More gathering spaces need to be provided on campus.

The Lincoln Campus Center contains designed open spaces in need of improvement.

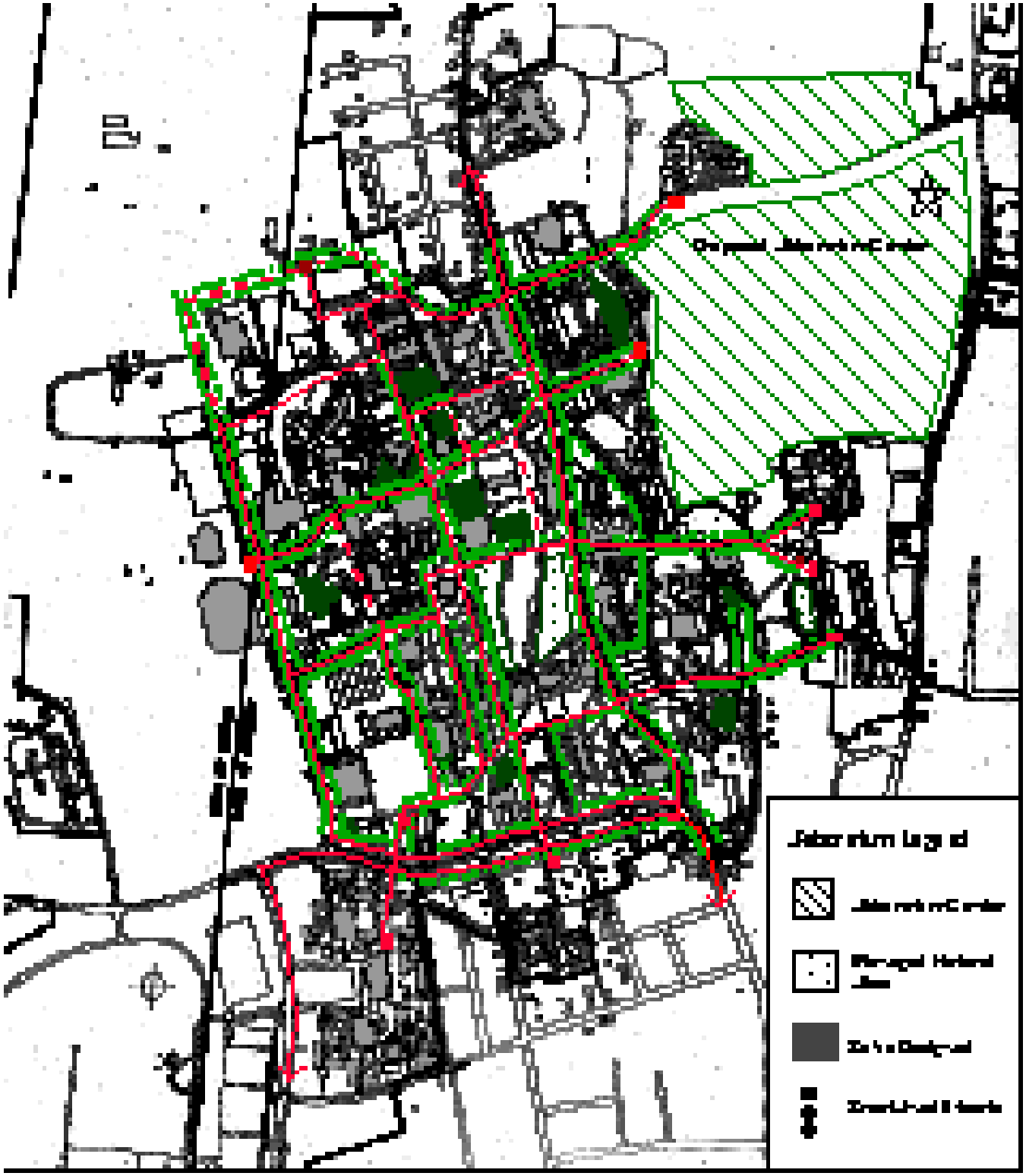
Relocate the bus stop from the Fine Arts Plaza to enhance the image of this potential "Area of Excellence".

Expand Recreational facilities at all campus residential areas.

Recommendations

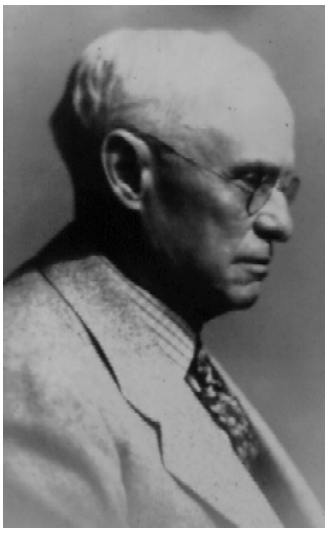
- Designate the Student Union entry as the next Area of Excellence where funds can be focused to create a positive campus image.
- Designate the Fine Arts Plaza and Haigis Mall as an Area of Excellence to be improved; relocate the bus stop .
- Designate the following unimproved areas as open spaces to be designed within the campus core: Engineering Quad, Goessmann entry and side yard, Stockbridge entry and back yard, Bartlett-Goodell entry, Memorial Hall east entry, South College entry, Thompson entry and Morrill frontage.
- Designate the following areas as designed open spaces in urgent need of improvement: Lincoln Campus Center west entry, Campus Hotel entry courtyard, W.E.B. DuBois Library courtyards, Thompson-Machmer area and Goodell-Chapel area.
- Designate the following buildings as Historical/Cultural Resources: The Chapel, Memorial Hall, South College, Wilder Hall, East and West Experiment Station , Munson and the Faculty Club.
- Enhance the recreational facilities at each of the five residential areas in association with the Housing Office Capital Plan.
- Develop a cross-country running and ski network connecting the North Campus, the Southwest dorms, and the Orchard Hill area with a perimeter trail around the campus.
- Remove "negative icons" such as the library fencing and trash barrels at building entries.

The W.E.B. DuBois Library Courtyard needs to be improved to provide an attractive seating and study area.



Waugh Arboretum Center

Waugh Arboretum



Frank A. Waugh, namesake of the Campus Arboretum.

Historic Durfee Conservatory was one of the first buildings on the Massachusetts Agricultural College Campus.

Background

While the existing arboretum on campus is historically significant, it is in a state of decline. If properly developed and maintained, the Waugh Arboretum has the potential to become an important part of the organizing framework for the campus landscape. In addition, it can become a significant arboretum which will be an educational and economic asset for the University, for the region and for the Commonwealth.

The arboretum has existed on campus for over one hundred years. During his 1867-1879 tenure as the University's third president, William Clark traveled to Hokkaido, Japan to establish an agricultural university and he returned to Amherst with Japanese plant specimens. Among these were several original introductions which have been credited to Clark. As the cross-cultural relationship between the two universities flourished, so did the collection of plants Clark collected on subsequent visits. Clark and his successor, Dr. Brooks, brought back a number of horticulturally outstanding Japanese plants toward the end of the 19th century, many of which comprise the backbone of the strong Asian presence in the arboretum today.

Interest in the campus arboretum continued under the eye of Frank A. Waugh, head of the landscape architecture department in the early 20th century. He had a vision of a picturesque campus where the buildings should blend with the agricultural landscape. This vision reflects the founding philosophy of the college, that *the land was more important than the buildings.* In 1944, after Waugh's death, President Baker recommended that certain areas of campus be set aside for development of the Waugh Arboretum and that their development be under the supervision of the Department of Landscape Architecture. It was voted to authorize the establishment of the Waugh Arboretum as recommended by the President and Massachusetts State College officially recognized the campus arboretum as a memorial to Waugh and his contribution to the campus landscape.

Although the arboretum is historically significant, it is not publicized or promoted by the University. Therefore its potential for contribution to the University and the community has been diminished. A more thoroughly developed arboretum will be an educational, cultural and aesthetic resource for the University and the community. As a regional destination, the arboretum could also become an economic asset for the University.

Objective

Provide an organizing theme for the campus landscape which supports teaching and research, defines the quality and character of open spaces and promotes the historical and cultural image of the University.

The objective of the development of the Waugh Arboretum is to provide a “green framework” which connects Landmark Destinations and defines key open spaces. The campus core arboretum will be revived and further developed and an Arboretum Visitors Center on Orchard Hill will support teaching and research activities.

A "Green Framework " connects Landmark Destinations and defines key open spaces. Tree-lines roads define the campus core.

Policies

1. The Waugh Arboretum and the Arboretum Visitors Center will provide a “landscape for learning” for the University and the general public.

2. A Master Plan will be the organizing tool for the arboretum. All additions to the arboretum must conform to and support the Arboretum Master Plan.

3. Several planting standards will be reinforced to establish landscape consistency and unity throughout the campus.

4. An Arboretum Advisory Board will be established as a decision-making body to direct and oversee the arboretum. By-laws will be written and followed as the guiding philosophy of, and objectives for, the arboretum.

Orchard Hill, the proposed site of the Arboretum Visitor's Center.

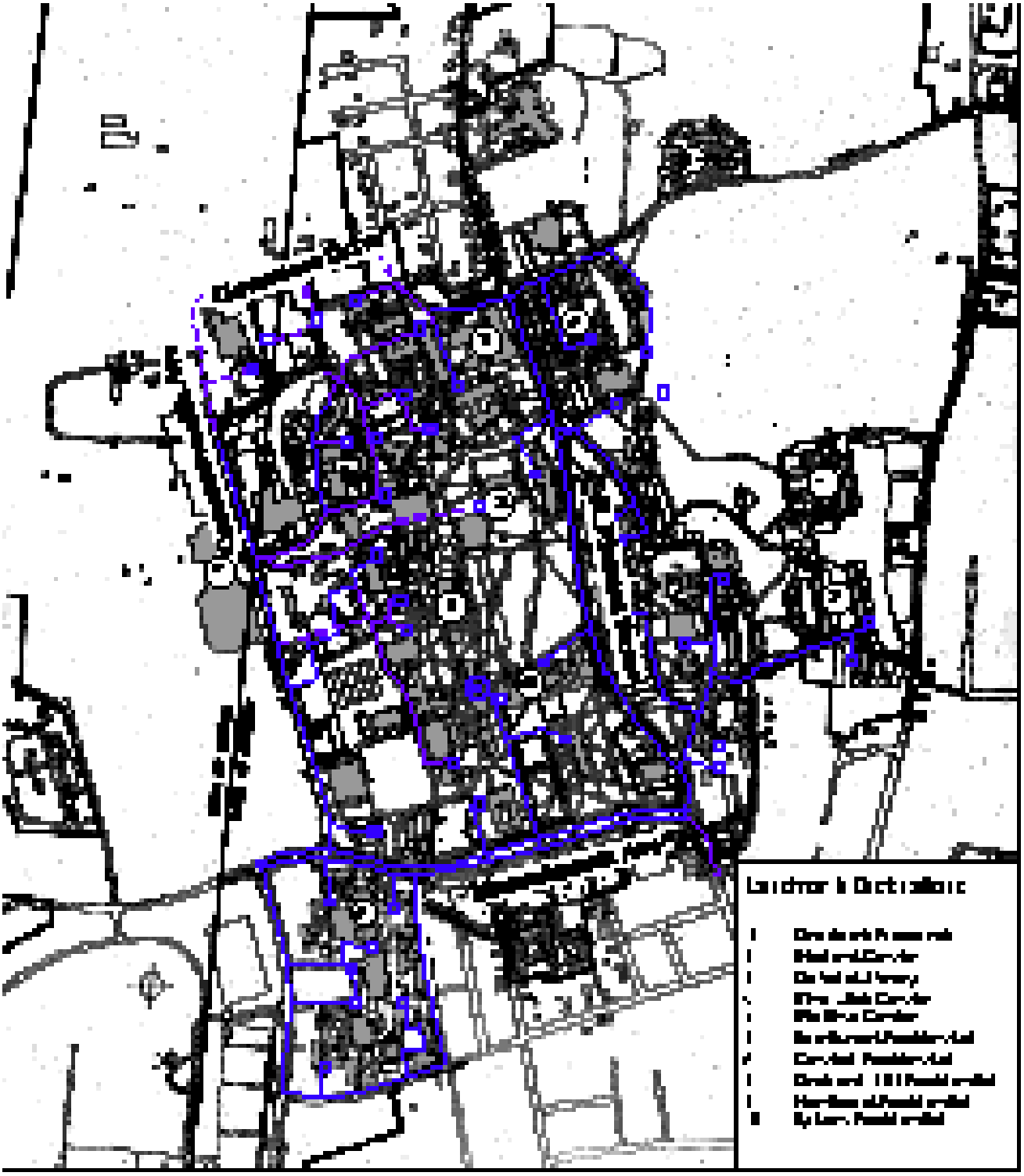
The Japanese Elm at South College is the oldest specimen in the USA.

Well placed plantings define an entrance on campus.

Plantings can be effectively used to screen outdoor equipment.

Recommendations

- Re-establish the Waugh Arboretum as the framework for landscape plans and projects which define plant palettes and plant communities to guide landscape development.
- Establish the Arboretum Advisory Board to prepare a mission statement, develop goals and objectives, develop by-laws and procedures for coordinating with the campus on development decisions.
- The Arboretum Advisory Board of approximately eight to twelve members should consist of a diverse consortium of members with arboretum or horticulture affiliations, including faculty, students and corporate leaders, Amherst/Hadley representatives, University alumni and a Chancellor's office representative.
- Review and approve Arboretum Advisory Board Charter/ By-laws and make initial appointments.
- Prepare a Master Plan for the Arboretum.
- Develop plans for the Waugh Arboretum Visitors Center and Research Center as a teaching asset for the University and a regional destination for visitors.
- The arboretum will serve as a living laboratory for Five-College and University research in landscape architecture, botany, horticulture, forestry, ecological restoration and plant sciences and a resource center for external professionals such as landscape architects, nursery professionals, and amateur gardeners.
- Develop arboretum themes which may include grouping plants according to genus, plant communities or habitat requirements.
- Develop landscape standards which use plants to accentuate building entrances, control movement and define linear zones, serve as screens for parking and dumpsters etc.
- Develop arboretum guidelines for memorial gifts and class trees, addressing issues of species selection, planting location and associated monuments.



Proposed Vehicular and Service Circulation in relationship to Landmark s

Vehicular Circulation and Parking

The North Entry to Campus is identified by a brick sign announcing events.

Background

The 1993 Campus Physical Master Plan stressed that new facilities be integrated into the campus core in a way that improves existing patterns of land use, open space, parking and circulation. The Plan further recommended establishing a clear sense of entry and arrival to the campus, extending the concept of the campus as a pedestrian environment and limiting the land area devoted to parking within the campus core.

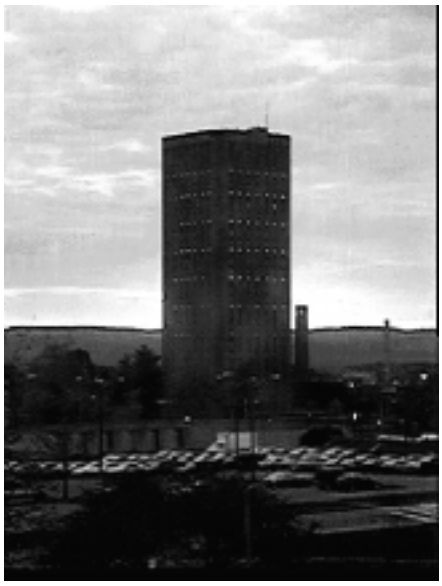
Currently, arrival areas to the campus from the east at Massachusetts Avenue and North Pleasant Street, from the west at Route 116, and from the north at Governors Drive and North Pleasant Street are designated by brick architectural signs which identify campus destinations and events. These signs were installed in 1993 as the first phase of the Directional Signage Program to identify the major gateways to the UMass Campus. The two entrances to the campus from East Pleasant Street do not have gateway signs.

One of the major arrival destinations on campus is the Lincoln Campus Center. The entrance is currently marked by an older directional sign at Commonwealth Avenue and the actual entrance is an underground passageway via the parking garage. Many visitors and returning alumni have specifically cited this arrival area as one that needs improvement.

To develop a new pedestrian and open space system for the campus, the problem of service, vendor delivery, and maintenance vehicles traveling on walkways and parking in gathering spaces must first be addressed. Currently, service vehicles travel freely on pedestrian paths and park in building plazas, entries and on planted areas. The problem is two-fold: safety issues occur from vehicles traveling on pedestrian paths and planted spaces incur damage from vehicles.

The problem of service, vendor, delivery and maintenance vehicles traveling on walkways and parking in gathering spaces must be addressed.

Approximately 20 parking lots are located within the campus core. The University's Division of Facilities Planning is coordinating a study to evaluate the location, size, parking space configuration and validity of current lots. Lots such as #62 on North Pleasant Street are sparsely planted and devoid of vegetative screens, creating an expanse of pavement and metal within the campus core. These parking areas impede pedestrian movement, interrupt direct circulation routes and bring more vehicles onto the campus core. The parking lot behind the Robsham Visitor's Center is a good example of parking screened by planting and located just outside the campus core on a major vehicular route.



Twenty parking lots are located within the campus core. Lot #62 is sparsely planted and devoid of vegetative screening, creating an unattractive expanse of pavement.

Objective

Promote a pedestrian friendly campus and environment by minimizing pedestrian and vehicular conflicts.

To establish a pedestrian friendly campus environment, many factors must be analyzed and integrated. Service vehicles, mail delivery and emergency vehicles must have clear routes established which incur the least possible conflict with pedestrian paths and have the least penetration into the campus core. Where pedestrians and vehicles follow a similar route, clearly defined paths for each must be designed to minimize conflicts. Accommodating bicycle traffic within the core also requires designating bicycle lanes to protect pedestrians from cyclists, and cyclists from vehicles. Rerouting traffic and establishing policies which enforce the exclusion of vehicles from pedestrian routes and prevent parking in inappropriate areas requires the cooperation of many administrative units including: the Parking Office, Central Receiving, Campus Police and Physical Plant.

The vision to enhance the quality of the campus environment by providing clearly articulated paths, open spaces, bicycle paths and service roads must also accommodate the convenience and efficiency of servicing buildings, and other maintenance and delivery functions.

Existing service routes are shown in light gray and proposed service routes in black. The Plan eliminates many service routes within the Campus.

Service vehicles travel freely on Pedestrian Paths creating issues of safety.

Under the proposed policy, the area in gray would be auto-free and pedestrian-friendly within the Campus Core.

Pedestrian and vehicular conflicts within the campus core will be minimized to the extent possible.

Policies

1. Auto-free zones within the campus core will be designated and enforced. Only emergency vehicles will be allowed.

2. Pedestrian and vehicular conflicts within the campus core will be minimized to the extent possible.

3. Vehicular access points will be consolidated, service routes will be established, and single access delivery locations to each building will be designated. Front door deliveries will be eliminated to the extent possible.

4. Service routes and delivery hours will be enforced with the cooperation of the Parking Office, Central Receiving and procurement vendors.

5. A bicycle path system, differentiated from pedestrian routes and vehicular traffic, will be established in areas where it is physically appropriate and feasible. Bicycle storage areas will be provided in close proximity to academic buildings and residences.

6. To the extent it is feasible, all future parking within the campus core, with the exception of handicapped parking, will be contained in parking structures. All other parking will be located on the periphery of campus, within a ten minute walking radius of the core, except for designated short-term parking at the Visitor's Center.

Vehicular access points will be consolidated and service routes will be established. Front door deliveries will be minimized

Recommendations

- Adopt the auto-free zones identified by the plan which will be used exclusively for pedestrian travel, with the exception of fire lanes.

- Adopt the plan for establishing new service and vehicular routes which designate an auto-free zone within the campus core, specifically protecting the Campus Pond area from vehicular traffic.

- Remove existing service routes which are not part of the new service plan.

- Provide a map indicating vehicular service routes and service entrances with daily parking passes; utilize the parking office to make service drivers aware of these routes, delivery hours and enforcement policies.

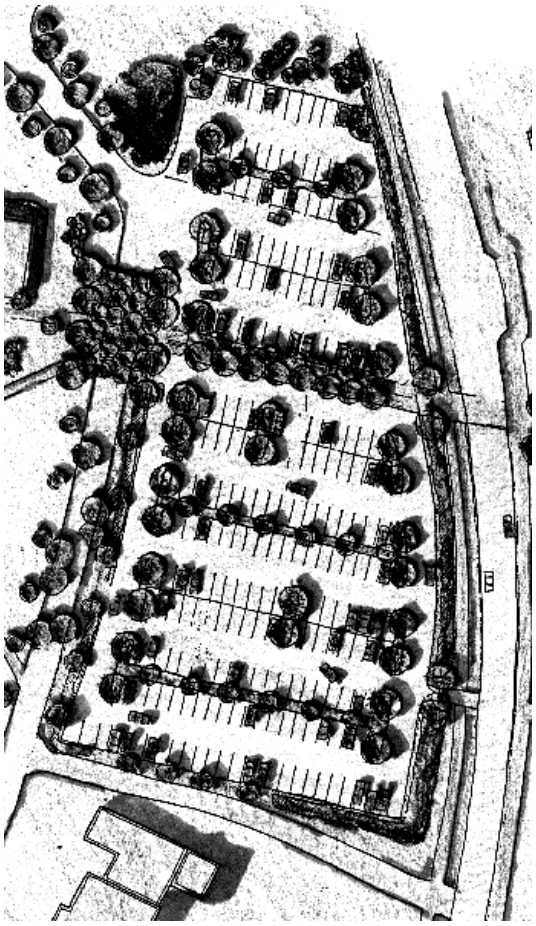
- Establish trash collection routes within service zones and locate areas for dumpsters appropriately.

- Develop landscape standards for parking lots within the campus core that incorporate planted berms and vegetative buffers to screen parking areas from pedestrian view.

- Evaluate closing Stockbridge Road as a major thoroughfare as part of a future Sub-Area Plan.

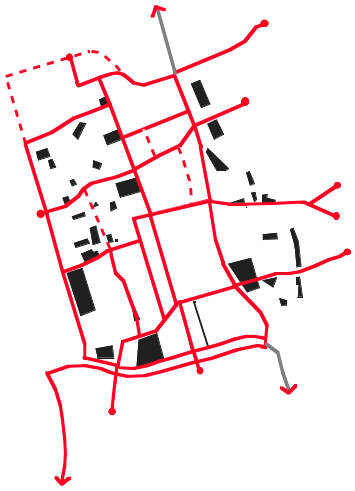
- Improve the gateway and major entry route to the Campus Center at Campus Center Way in conjunction with improvements to the Campus Center/Student Union exterior open spaces.

- Improve the entry from North Pleasant Street area to the campus in partnership with the Town of Amherst and private property owners.



Prototype plan for North Area parking lot plantings that provides vegetative buffers to screen parking areas from pedestrian view.

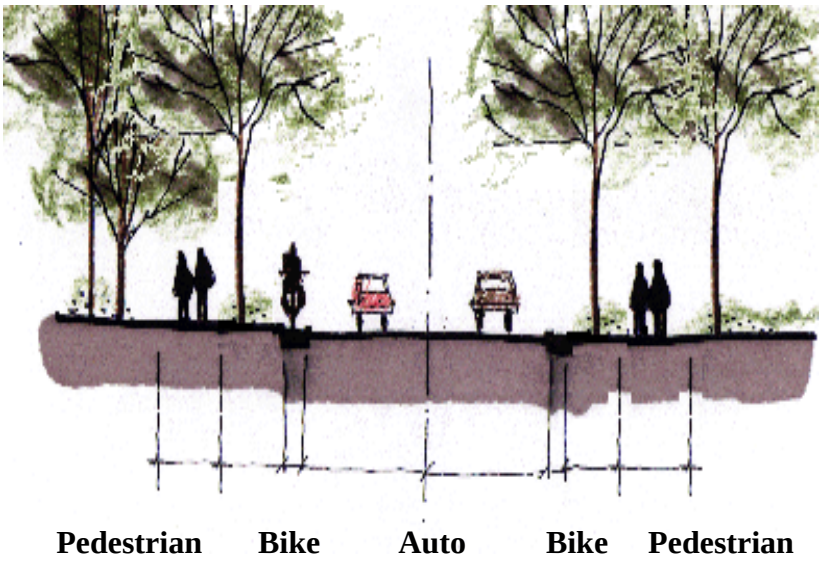
Existing parking lot screen planting at the Robsham Visitor's Center.



Remove Campus Core parking lots to the periphery to provide new opportunities for infill and open spaces.

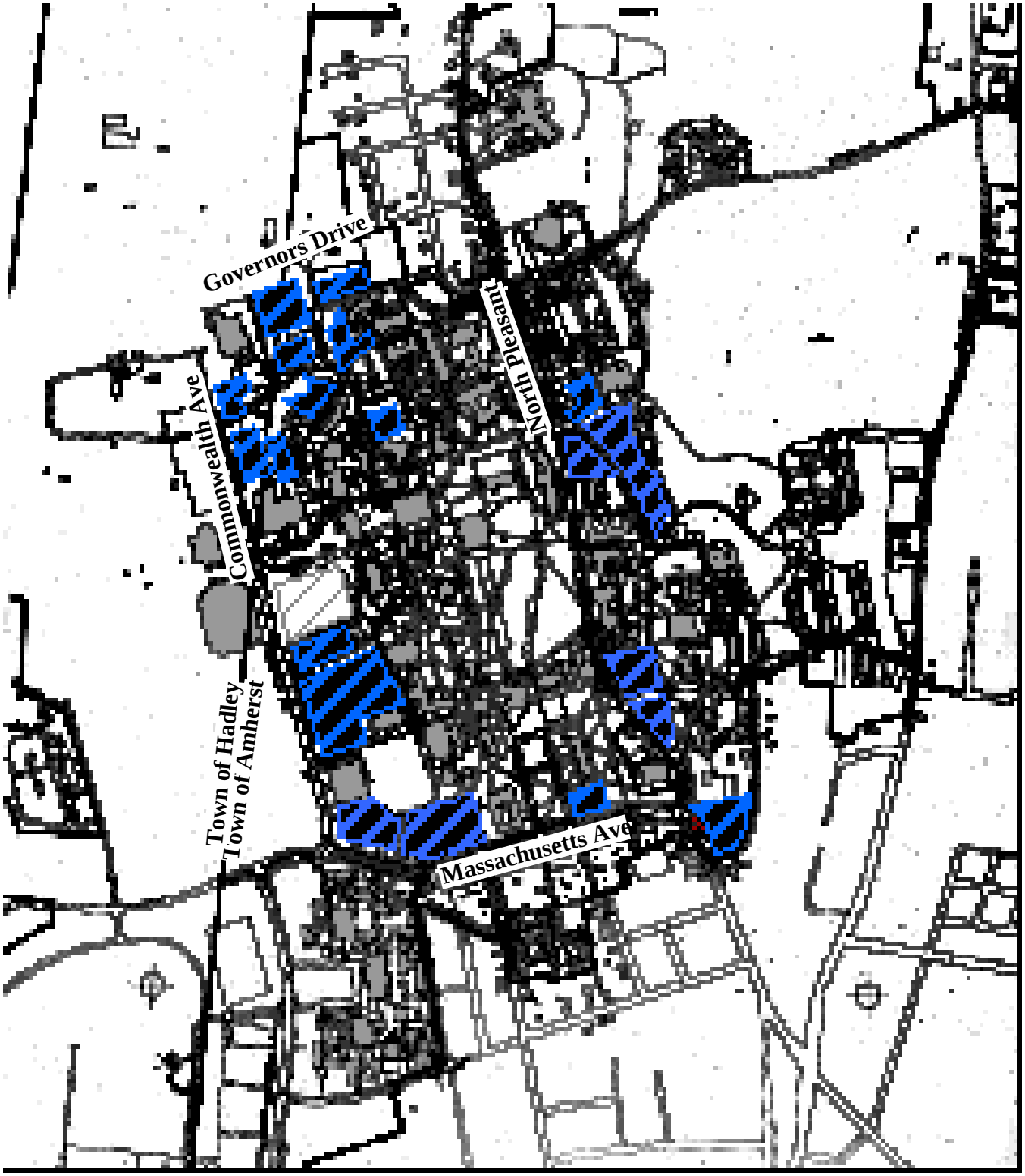
- Plan for a Multi-Modal Transportation Center to provide perimeter access efficiency and reduce future parking demand.
- Move campus core parking lots to the periphery to provide new opportunities for infill and open spaces.
- Provide bicycle racks at all major buildings and at residential areas.
- Fund a study to develop a bicycle lane network within the campus, separate from pedestrian paths and vehicular routes, which connects the University with the five-college bike system.

Provide bicycle racks at all major buildings and at residential areas.



Fund a study to develop a bicycle lane network within the campus, separate from pedestrian and vehicular routes to the extent possible.

Improve the image of the North entry by creating a designed landscape at the gateway sign.



Potential Infill Development Sites Within the Campus Core

Infill Development Patterns

Wilder Hall has a well-defined entrance.

One of the main distractions on campus is the placement of dumpsters and trash cans in poor relationship to building entrances.

The lack of bicycle storage areas needs to be addressed in the context of comprehensive site furnishings.

Background

The Campus Physical Master Plan cited infill, the integration of new academic facilities and resources within the campus core, as the major concept for improving the physical character of the campus. A strong system of pedestrian walkways and open spaces provides the framework for designating future development sites.

The Engineering Quad, established by the renovation of Marcus Hall and the addition of the Knowles Engineering Building, illustrates how thoughtfully placed buildings can define an academic open space for student gathering. The courtyard space created between the low rise and high rise buildings of Lederle Graduate Research Center illustrates another area where a space has been successfully defined by structures. The Silvio O. Conte Polymer Building has a designed entry space which also serves as a gathering space for students. However, these three examples are not the norm within the campus core; more new infill sites need to incorporate this kind of infill building placement.

Clearly defined paths which guide the location of buildings and the spaces around them, should be direct routes which eliminate needless asphalt "spaghetti" paths. Currently, as many as five roads/walks may connect or pass through an area such as the Campus Center making it difficult to define its entry, arrival areas or courtyards.

One of the main distractions one views on campus is the placement of dumpsters and trash cans in relationship to building entries. The previous vehicular/service circulation framework recommends screening or moving dumpsters away from building entrances to improve the overall aesthetic experience of people on campus. These are "negative icons" that should be addressed as a priority.

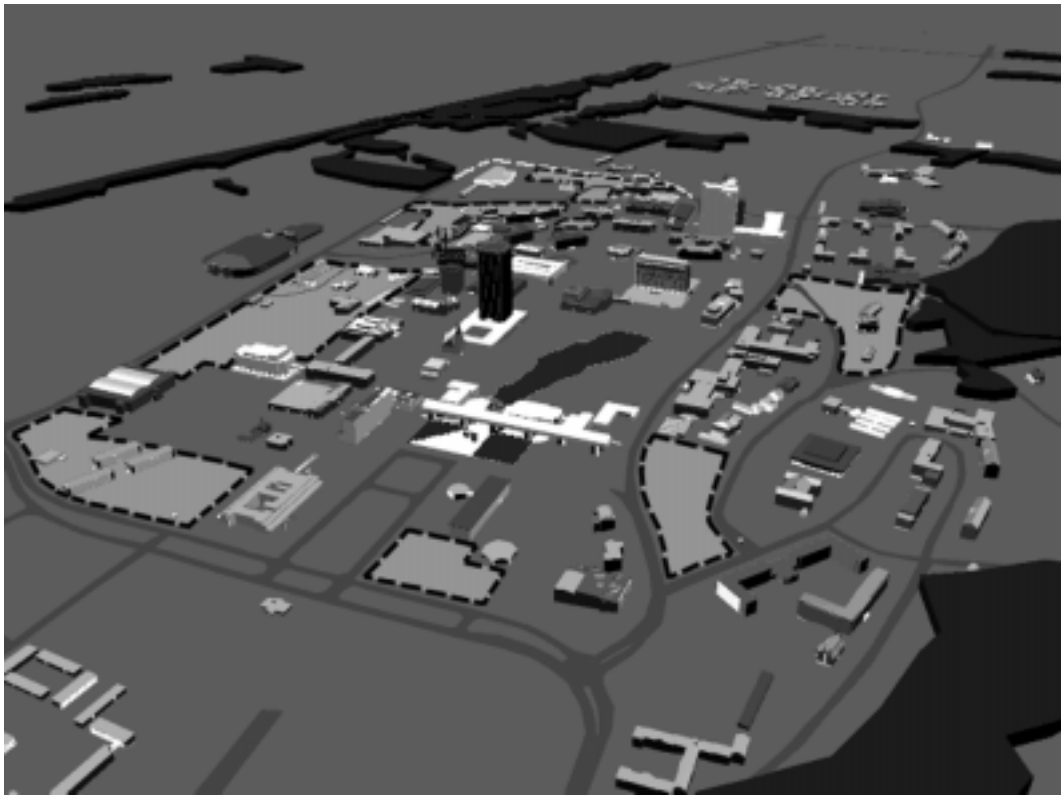
The lack of bicycle storage areas and the placement and appearance of existing racks are issues which need to be addressed in the context of comprehensive site furnishings. At some buildings, tree branches and railings are used to secure bikes. In most cases, unsightly broken racks are located in close proximity to the entry doors, prohibiting the use of these areas as a gathering spaces.

Objective

Utilize the Framework Plan as a guide in identifying appropriate sites for future infill development within the campus core. View new buildings as elements that define, reinforce and strengthen spaces and corridors.

The concept of infill development is influenced by the overlay of the five components of the framework plan: the pedestrian circulation system, the campus open space system, the landscape and arboretum framework, the vehicular, service and parking configuration and existing development patterns. The spaces created by this composite framework are identified as potential development sites.

Future Infill Development Sites are defined by an overlay of the Pedestrian, Vehicular, Open Space and Arboretum Systems.



Infill Areas as identified by the 1993 Campus Physical Master Plan.

Designate a percentage of new construction budgets for landscape site improvements as at the Silvio O. Conte building entry.

Main entrances to buildings will be enhanced as gathering spaces, as at the Mullins entry court.

Enhance building entrances as gathering spaces, as at the Graduate Research Center.

Policies

1. New construction of academic facilities will occur within the primary road system of the campus core.

2. All planning for new construction will designate a percentage of the budget for landscape amenities to define the areas around each building.

3. A system of identifiable academic clusters will be established, e.g. College of Engineering Quad, with corresponding open/ public spaces, to promote easy identification of destinations, to build community identities, and to facilitate fundraising.

4. Main entrances to buildings will be enhanced as gathering spaces for students, faculty and staff.

Recommendations

- Adopt a policy to designate a portion of new construction budgets for site improvements including plantings, site amenities and infrastructure.

- Adopt the infill zones defined by the open space, pedestrian and vehicular circulation framework plan for future development.

- Develop plans to improve existing entry areas, courtyards and gathering spaces associated with academic clusters, incorporating a specified palette of paving, plantings and site amenities.

Strategic Recommendations

Adopt a set of policies to establish a comprehensive campus Framework Plan delineating pedestrian circulation, open spaces, designed landscapes, vehicular circulation and infill development sites to unify the complex physical layout of the campus.

Pedestrian Circulation System

Immediate Action

1. Adopt the proposed pedestrian framework defining major pedestrian corridors that provide linkges between Landmark Destinations.

2. Designate major pedestrian intersections as areas of special interest for which designed gathering spaces will be provided.

3 Designate sites along the major east-west pedestrian corridor, from the Student Union through Morrill Courtyard to Orchard Hill, for campus image improvement.

4. Implement segments of the pedestrian framework system by focusing class gifts and memorial donations on locations identified as areas of excellence, special interest, pedestrian system intersections and as campus image projects.

5. Endorse the development of design guidelines which specify a landscape palette of paving materials, site amenities and planting elements for pedestrian walkways and intersections, designed landscapes and building entries and courtyards.

6. Develop a campus map which provides orientation information from the Visitor's Center and other key areas of campus. Coordinate these efforts with Physical Plant to complement the Signage Master Plan.

7. Expand the sign program to include signs distinguishing pedestrian-only paths from vehicular/service routes.

Future Action

1. Selectively remove unnecessary paths which are not part of the Framework Plan and convert them to designed landscapes.

2. Improve the pedestrian route along Commonwealth Avenue to the Mullins Center.

Open Space System

Immediate Action

1. Designate the Student Union area as the next Area of Excellence where campus funds can be focused to create a positive campus image.

2. Designate the following undefined open spaces as open spaces to be designed within the campus core: Engineering Quad, Goessmann entry and side yard, Stockbridge entry and rear yard.

3. Designate the following areas as designed open spaces in urgent need of improvement: Lincoln Campus Center east and west entries, Campus Hotel entry courtyard and DuBois Library courtyards.

Future Action

1. Designate the Fine Arts Plaza and Haigis Mall as an Area of Excellence to be improved; relocate the bus stop.

2 Expand or enhance recreational facilities associated with each of the five residential areas in association with the Housing Office Capital Plan.

3. Develop a cross-country running and ski network connecting the North Campus, the Southwest dorms and the Orchard Hill area by establishing a perimeter trail around the campus.

Waugh Arboretum

Immediate Action

1. Re-establish the Waugh Arboretum as the framework for landscape plans and projects which define plant palettes and communities and guide landscape development.

2. Establish the Arboretum Advisory Board to prepare a mission statement, develop goals and objectives, develop by-laws and procedures for interfacing with the campus on development decisions.

Future Action

1. Prepare a Master Plan for the Waugh Arboretum.

2. Review and approve Arboretum Advisory Board Charter/ By-Laws and make permanent appointments.

3. Develop plans for the Waugh Arboretum Visitors Center and Research Center as a teaching asset for the University and a regional destination for visitors.

Vehicular Circulation and Parking

Immediate Action

1. Adopt the auto-free zones identified by the plan which will be exclusively for pedestrian travel, with the exception of fire lanes.

2. Adopt the plan for establishing new service/vehicular routes which designate an auto-free zone within the campus core, specifically protecting the Campus Pond area from vehicular traffic.

3. Remove existing service routes which are not part of the new service plan.

4. Provide a map indicating vehicular service routes and service entrances with daily parking passes; utilize the Parking Office to make service drivers aware of these routes, delivery hours and enforcement policies.

5. Establish trash collection routes within service zones and locate areas for dumpsters appropriately screened from view.

6. Develop landscape standards for parking lots within the campus core which incorporate planted berms and vegetative buffers to screen parking areas from pedestrian view.

7 Provide bicycle racks at major buildings and at residential areas.

8. Improve the gateway and major entry route to the Campus Center at Campus Center Way in conjunction with improvements to the Campus Center/Student Union exterior open spaces.

Future Action

1. Fund a study to develop a bike lane network within the campus, separate from pedestrian paths and vehicular routes, which connects the University with the five-college bike system.

2. Plan for a Multi-Modal Transportation Center to provide perimeter access efficiency and reduce future parking demand.

3. Move campus core parking lots to the periphery to provide new opportunities for infill and open spaces.

4. Improve the entry from North Pleasant Street area to the campus in partnership with the Town of Amherst.

Infill Development Patterns

Immediate Action

1. Adopt a policy to designate a portion of new construction budgets for site improvements including plantings, site amenities and infrastructure.

2. Adopt the infill zones defined by the open space, pedestrian and vehicular circulation framework plan for future development .

Future Action

1. Develop plans to improve existing entry areas, courtyards and gathering spaces associated with academic clusters, incorporating a specified palette of paving, plantings and site amenities.