CONSTRUCTION--UNF CAMPUS
MASTER SITE
DEVELOPMENT PLAN
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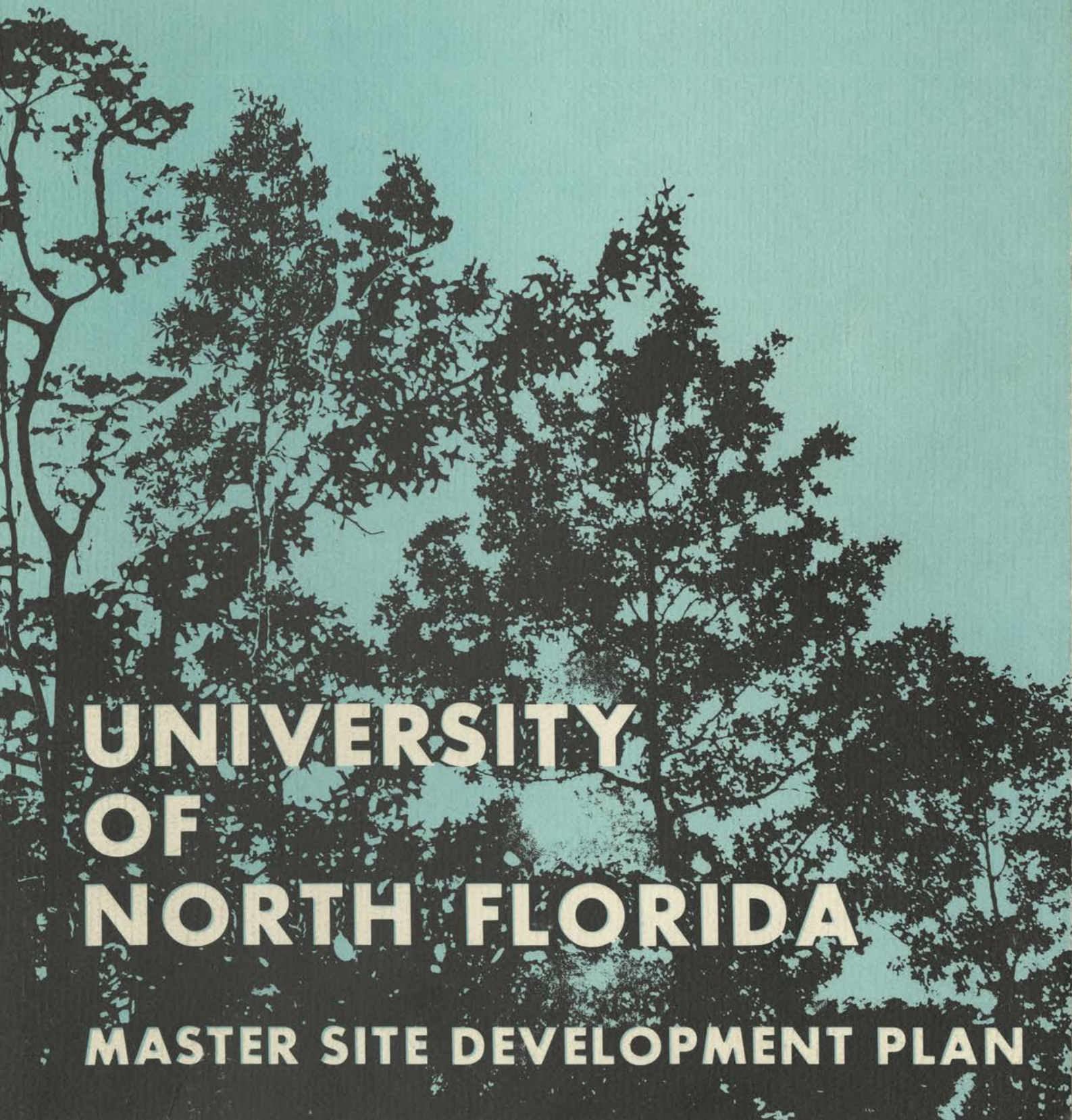

UNIVERSITY OF NORTH FLORIDA

MASTER SITE DEVELOPMENT PLAN

Photographs for the Master Site Development Plan document were taken on the University of North Florida site by Webb D. Wink. The cover photograph is a composite of the predominate site patterns, representing the overall character of the campus environment. Divider photographs display a diversity of visual impressions which occur throughout the site.

MASTER SITE DEVELOPMENT PLAN

UNIVERSITY OF NORTH FLORIDA

Jacksonville, Florida

PREPARED FOR THE STATE OF FLORIDA
DEPARTMENT OF GENERAL SERVICES

Reynolds, Smith and Hills
Architects • Engineers • Planners, Incorporated
Jacksonville, Florida

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October, 1972

Dr. Thomas G. Carpenter, President
University of North Florida
Box 17074, Pottsburg Station
Jacksonville, Florida 32216

Dear Dr. Carpenter:

We are pleased to offer the accompanying analytical report and planning product in a master campus development plan for the University of North Florida.

Beginning with the legislative act that enabled an upper division university to be established in Jacksonville, there have been varying opinions as to where such an institution should be located. A strong faction felt that this institution should be located in the core city while another faction felt that it should be located in the projected future center of the metropolitan Jacksonville area. The latter type of location was ultimately selected largely because the requirement for 1,000 contiguous acres could not be met in the core city. The resultant site and the campus which will evolve from this plan will become, we believe, a very fortunate occurrence for the City of Jacksonville.

This 1,000 acre site, definitely rural in character, abounds with wild animal and plant life and contains rather typical Florida swamp and sandy ridge terrain. While this is an atypical college site by most standards we believe it offers some unique opportunities. The natural forces of this site direct the academic campus development to a single ridge which will in essence create a 145 acre urban enclave in a native surrounding. This native surrounding will both isolate and insulate the campus from the inevitable urban sprawl which will overtake the site all too soon. A very early personal impression of this site holds steadfast, that being, what a marvelous opportunity this affords to bring the urbanite out into this unspoiled natural environment.

We are heartened by the fact that immediately upon taking possession of this site the University of North Florida had it declared a wildlife sancturary It is this kind of spirit that we hope to perpetuate through the development of the campus in accordance with this master campus development plan.

Respectfully submitted,

John T. Brickert

John T. Brickert
Senior Project Manager

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The Master Site Development Plan for the University of North Florida is presented as a guide for development phases and a point of departure for detailed site planning. This report embodies the formulation of concepts and incorporates these ideas into the campus plan. The document emphasizes a concern for the natural environment of the site, the quality of physical development and the visual result of planning decisions.

The campus proper is a compact, academic core and predominately consists of classroom, office and laboratory buildings. These physical facilities accommodate a projected enrollment of 10,000 full time equivalent students through 1988. The nucleus is formed by a library complex and is interconnected to the village street. The urbanized campus is encircled by a zone of supporting site uses in a semi-rural setting. The intensity of development decreases outward from the core and village street to the surrounding site amenities.

In addition to documenting the results of the Master Site Development Plan, the planning process and sequence of studies that determine those results, are presented. A synthesis of site conditions, including initial construction, establishes the order of site development and accommodates the spatial distribution of required uses on compatible areas of the site. The analysis of enrollment projections are translated into physical requirements to accommodate an orderly growth sequence. The coordination of academic requirements and site conditions formulates development priorities for conceptual organization of the campus. The central theme for physical development of the campus is the village street. The concept forms a cohesion of identifiable places for the commuter student and promotes social interaction within the academic zone. The flexibility of the village street is in accord with central space assignment criteria, accommodating multi purpose uses and periodic reallocation with subsequent growth. Likewise, the framework of the Master Plan is purposefully flexible to allow for design refinements throughout development phases. Illustrative development guidelines are to assist in the realization of plan concepts. They delineate design considerations for detailed site elements in order to coordinate each improvement with the total campus character.

ABSTRACT

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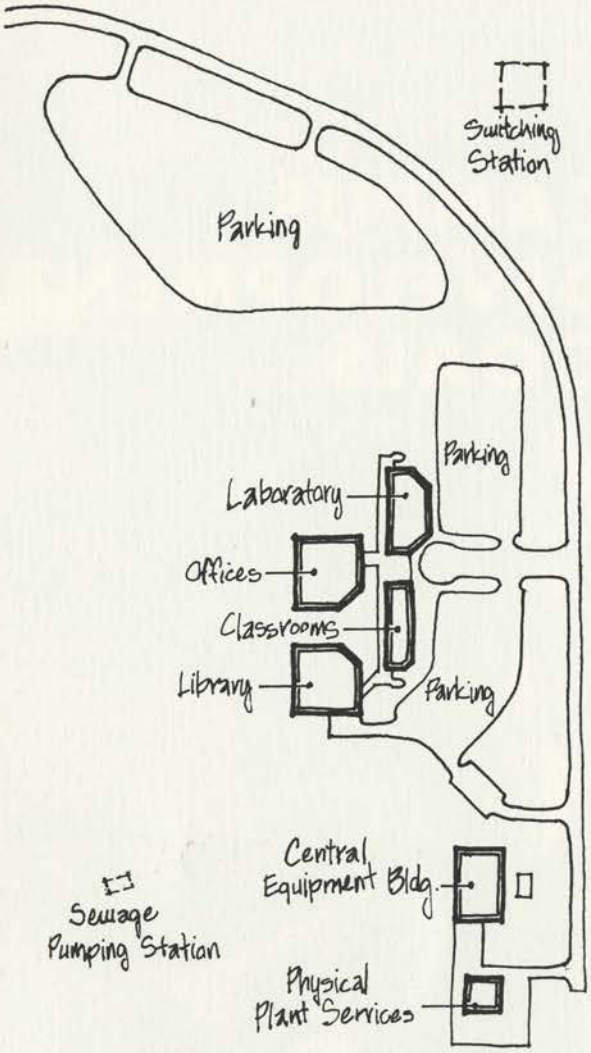
The formative years of the University of North Florida will culminate with the fall opening of 1972. Completion of the Phase I-B buildings will begin the nine stage construction program projected through 1988. A brief historical note will indicate some of the major steps taken toward formation of the University.

Having begun with legislative authorization in 1965 to locate a state university in Jacksonville, the State University System Board of Regents established the upper division and graduate level program. This program was formed to act as an extension of Florida's public community colleges, specifically meeting the needs of northeast Florida. After appropriation of planning and construction funds by the Legislature, a 1,000 acre site, located in southeast Jacksonville, was donated by the City. With the appointment of Dr. Thomas G. Carpenter, as President of the University, continued planning led to development of the Colleges of Arts and Sciences, Business Administration and Education.

With the fall opening of the University the combined expertise of the staff and faculty for the respective colleges will be utilized in teaching and research and will be extended to public service units. The University of North Florida, presently prepared for an initial enrollment of 1500 students, will continue to expand academic programs and the planned phasing of campus development.

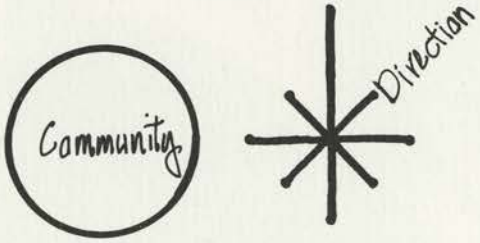
FOREWORD

I. CAMPUS DEVELOPMENT GOALS



PHASE I-B BUILDING CONSTRUCTION

Combining academic buildings for educational purposes with physical plant planning, the first phase of the University of North Florida's fast track construction program provides four buildings joined together in a single pod. The fast track program, in which work commences before bids are taken or plans completed for later phases, results from the compressed time schedule faced by the University. An office building, classrooms, laboratories, a library, and utility buildings, providing 150,000 gross square feet (GSF) comprise U.N.F.'s initial development. Second phase buildings are to be ready for the Fall of 1973 in order to maintain planned enrollment and academic growth. The second phase program meets the University's needs until 1976 with a projected enrollment of 3600 full time equivalent students.



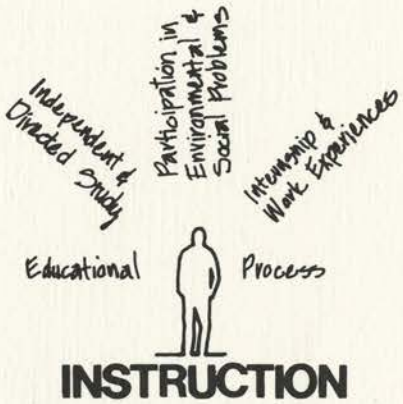
PHILOSOPHY OF THE UNIVERSITY

The University of North Florida is a state supported, public institution of higher education. The upper division University provides the opportunity for the people of northeast Florida and the state to achieve a comprehensive educational background.

The graphic logo of U.N.F. exemplifies the philosophy of the University. The circle symbolizes the community which the University serves. The modified compass rose signifies the commitment of the University to provide direction for lives. Positioning of the compass rose in the upper northeast quadrant of the circle represents the upper division institution, located in northeast Florida.

The University is designed for the commuter in order that working people may have the opportunity to alternate between the campus, their homes, and their jobs, while continuing their educations toward respective degrees.

Priority in the educational process is placed upon classroom instruction, supplemented with independent and directed study, student participation in study of environmental and social problems, and a Cooperative Education Program, which combines college attendance with actual work experiences. The objectives of the University of North Florida are coordinated with other institutions in order to integrate the program of each student into a continuum of upper division curricula.



PHYSICAL INTERPRETATION OF THE UNIVERSITY'S PHILOSOPHY

The physical facilities of U.N.F. encourage an educational, architectural and social mix of students and faculty. The individual buildings promote this mix and collectively function to increase communication among students and faculty. The village street further achieves a physical inter-mix of students and faculty from all disciplines within the University. The University's physical plan provides the atmosphere and setting for the interrelationship of various disciplines within the overall academic program.

The philosophy of a comprehensive academic exposure provides University participants with opportunities for educational as well as social contact. Learning at the University occurs not only in the formal classroom, but also in outdoor seminars, group meetings, and in the simple crossing of paths between people, situations, and ideas.

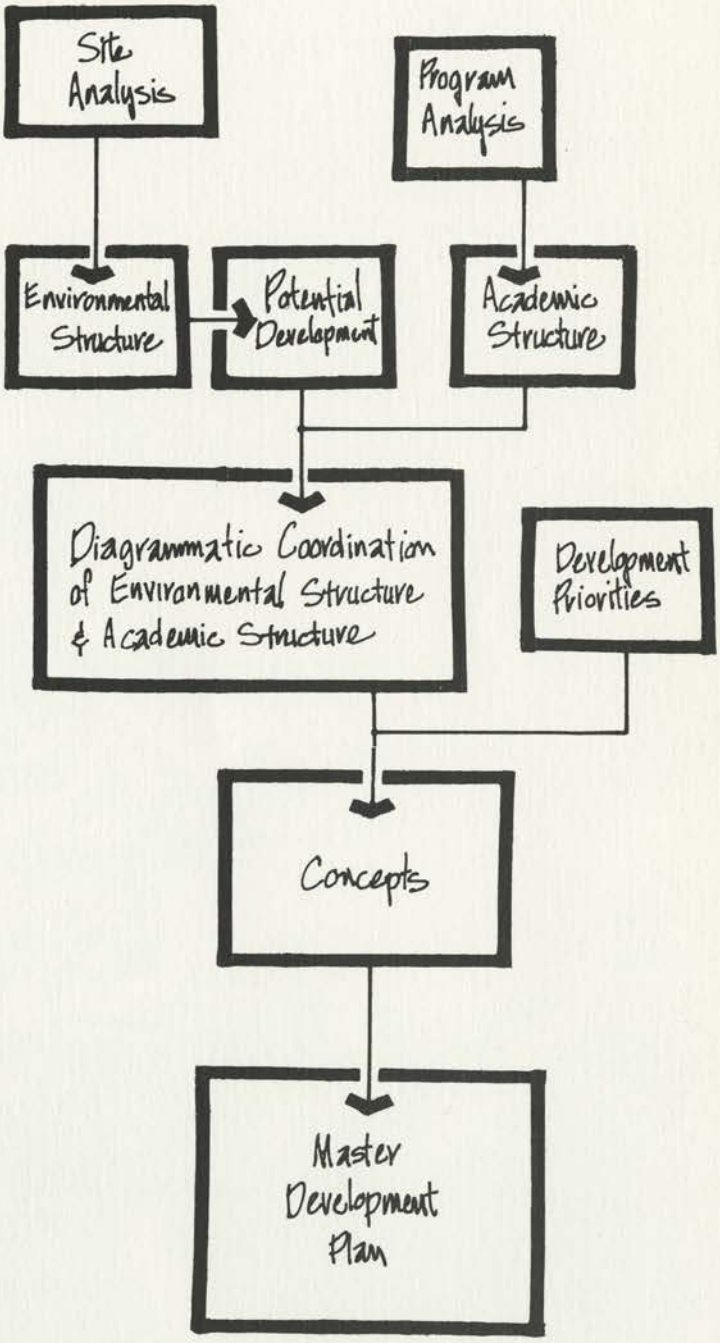
The academic environment for U.N.F. interprets the intrinsic character of the site into the overall framework of the campus and into the site development details. A physical and visual unity between natural and architectural conditions balances progress with a concern for the environment.

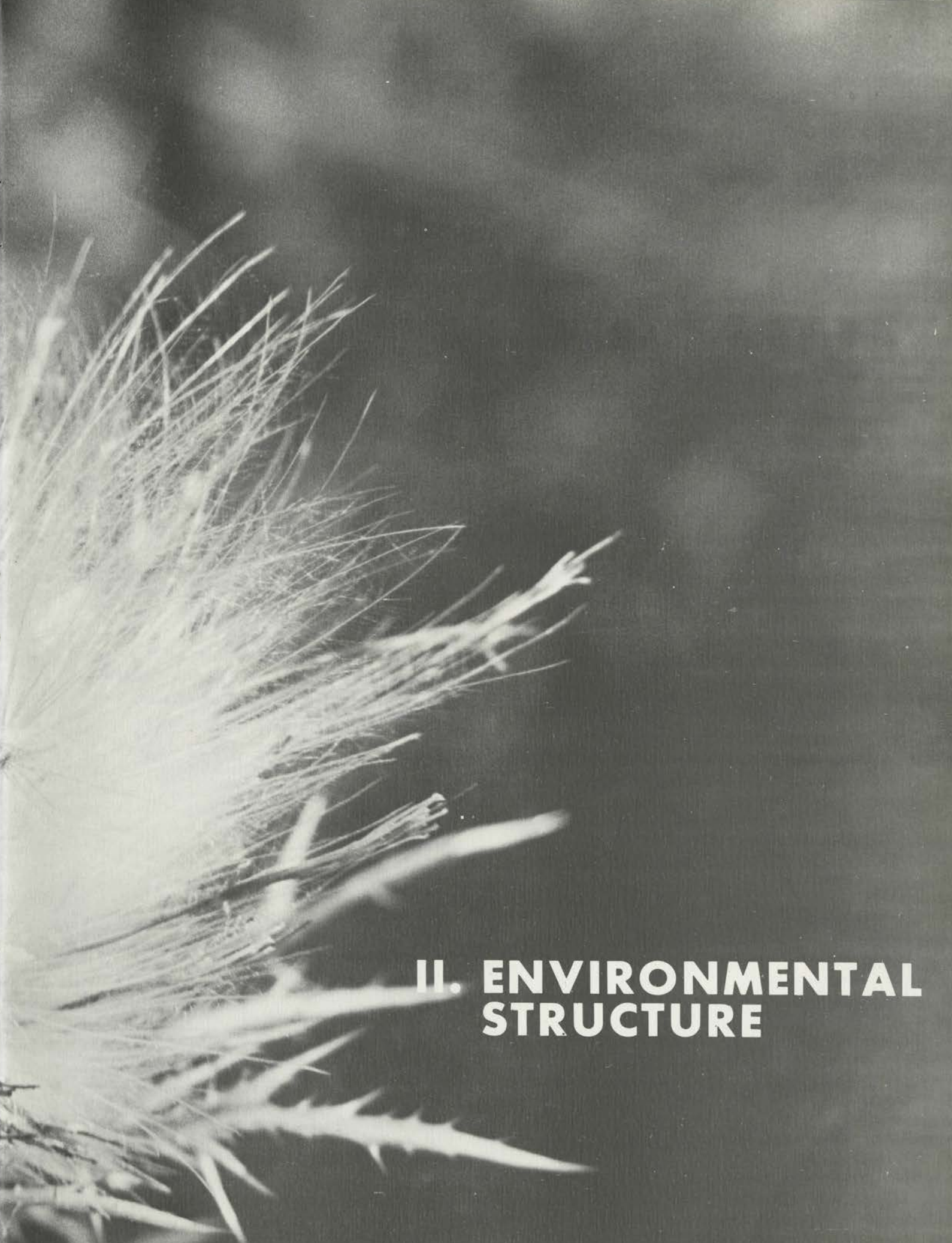
THE PLANNING PROGRAM

The Master Site Development Plan, responding to the philosophy of the University of North Florida, reflects the following program:

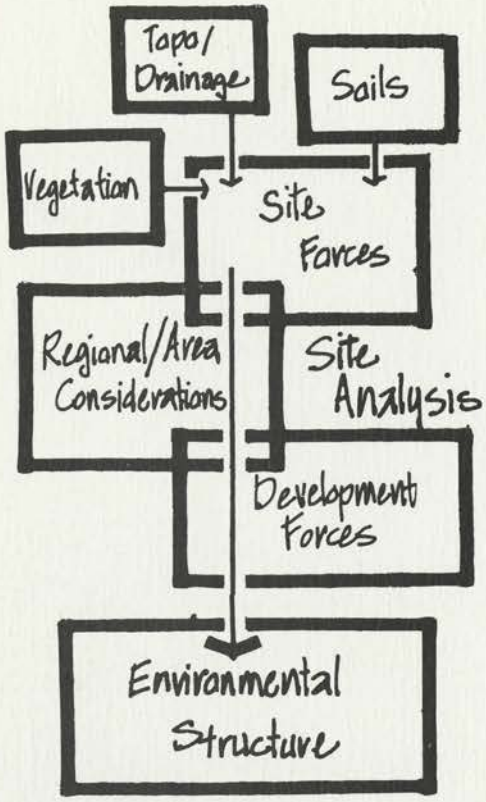
Analysis of enrollment projections and academic program requirements establishes land use categories, resulting in identification of physical form determinants. Analysis of physical, cultural, and aesthetic characteristics of the site as well as surrounding influences identifies the order and priority of determinants

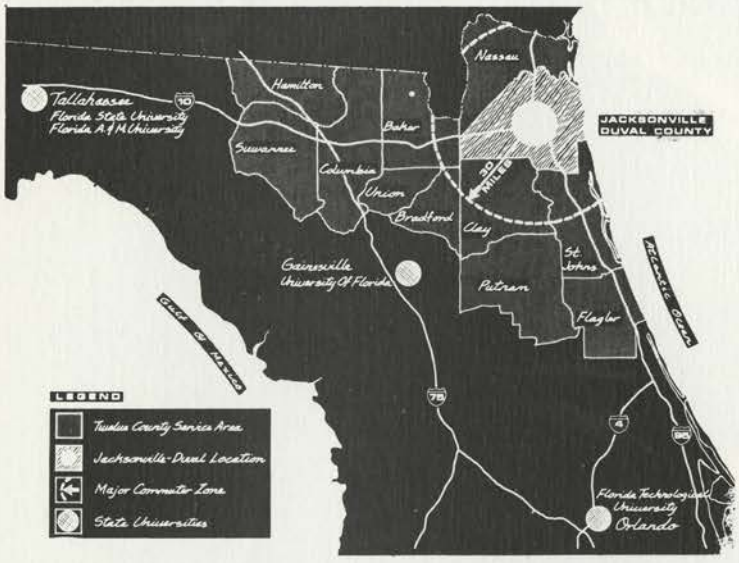
which regulate the development capacity of specific site zones. Synthesis of the environmental structure establishes the general land use and circulation potential of each site zone and its proper relationship to development capacity. Investigation of three general schemes illustrates possible directions for conceptual alternatives. The resultant Master Plan is a framework for campus growth, establishing a schematic design for the elements of the site and serving as a guide for phased development. The documentation of the program provides the reference source for future physical development of the campus.

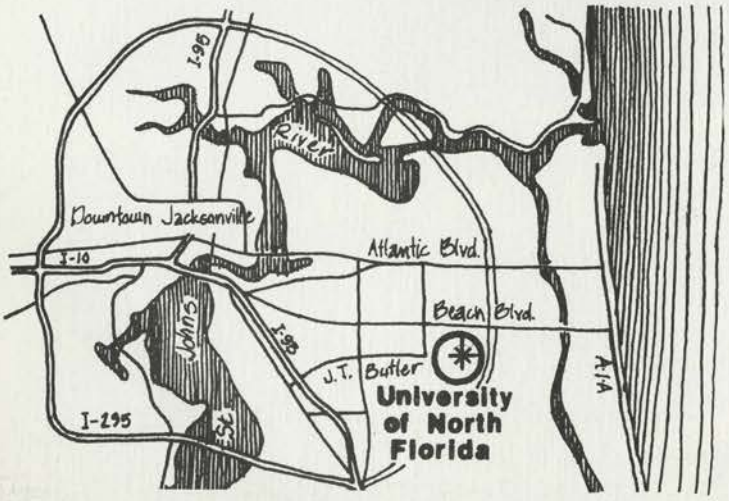




II. ENVIRONMENTAL STRUCTURE







SURROUNDING INFLUENCES

The Region

This upper division University is regionally located in northeast Florida to meet the steadily increasing demand of upper division candidates from this area. Satisfying the requirements for an urban university within the twelve county service area of northeast Florida, Duval County is the location of the campus site. Most students anticipate commuting from either the Jacksonville area proper or the larger twelve county service area.

The County

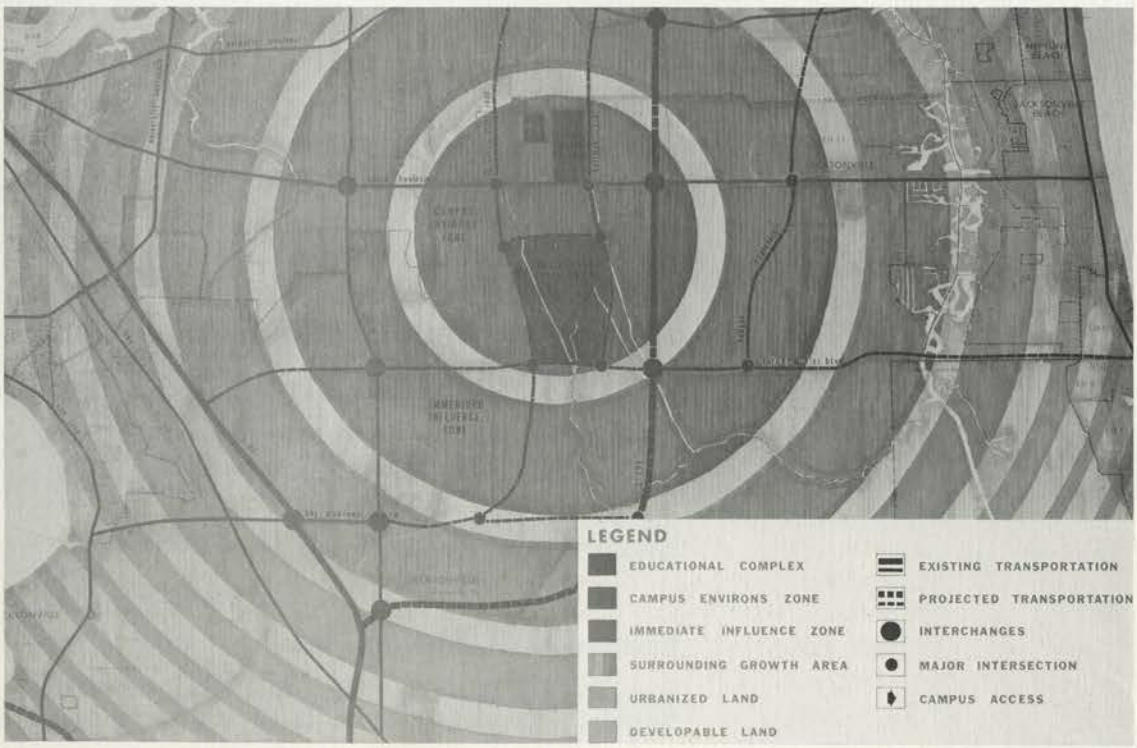
Jacksonville, Duval County, as the economic center of northeast Florida, meets the State University System criteria for establishing a system of junior college and university campuses in major population centers. The State University in Duval County contributes to the training of man power in support of the local economy. Moreover, the transportation system of the county supports additional university criteria for establishing urban institutions oriented to commuter students.

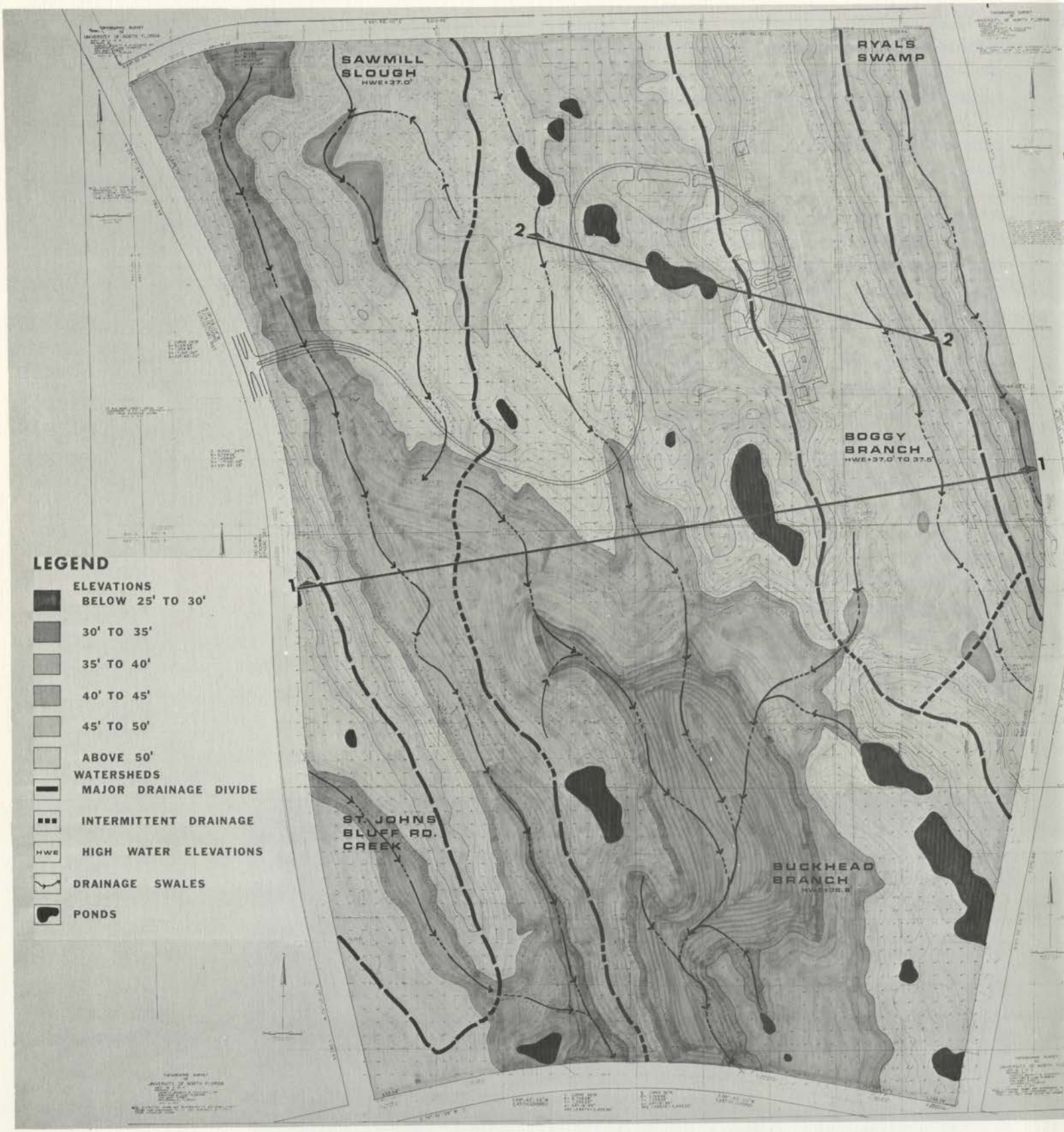
The Urban Campus Environs

The southeast Jacksonville location of the University of North Florida places the campus in a primary development area extending out from the central business district to the beaches. A major contributor to the growth potential of the campus environs is the projected transportation network. The primary existing east-west route, Beach Boulevard, serves as the initial access to the campus, until supplemented by J. Turner Butler Boulevard. This additional route, extending from Interstate 95 to the beaches, is planned to connect with north-south Alternate 1, St. Johns Bluff Road, proposed I-295 and Hodges Boulevard. Initially utilizing only northern access to the

campus, increase in commuter enrollment places emphasis upon completion of a southern access, providing a connection with I-95 and I-295. The future development of the area and the transportation systems have a decisive impact upon community circulation patterns and campus access points.

Although site selection criteria considered the availability of community facilities, development of the University increases the need for housing, recreational areas, shops and other attendant facilities. In addition to the University of North Florida, Florida Junior College and Sandalwood Junior-Senior High School comprise an educational complex within the development area. This educational center potentially influences standards for the quality of development on adjacent properties. Within the 1,000 acre site the physical and visual development of an intensively urbanized campus leaves a proportionate amount of semi-rural acreage for future land uses and wildlife preserves. The following environmental investigation gives consideration to off-site influences but places predominant emphasis upon evaluation of site forces and development effects.





SITE COMPONENTS

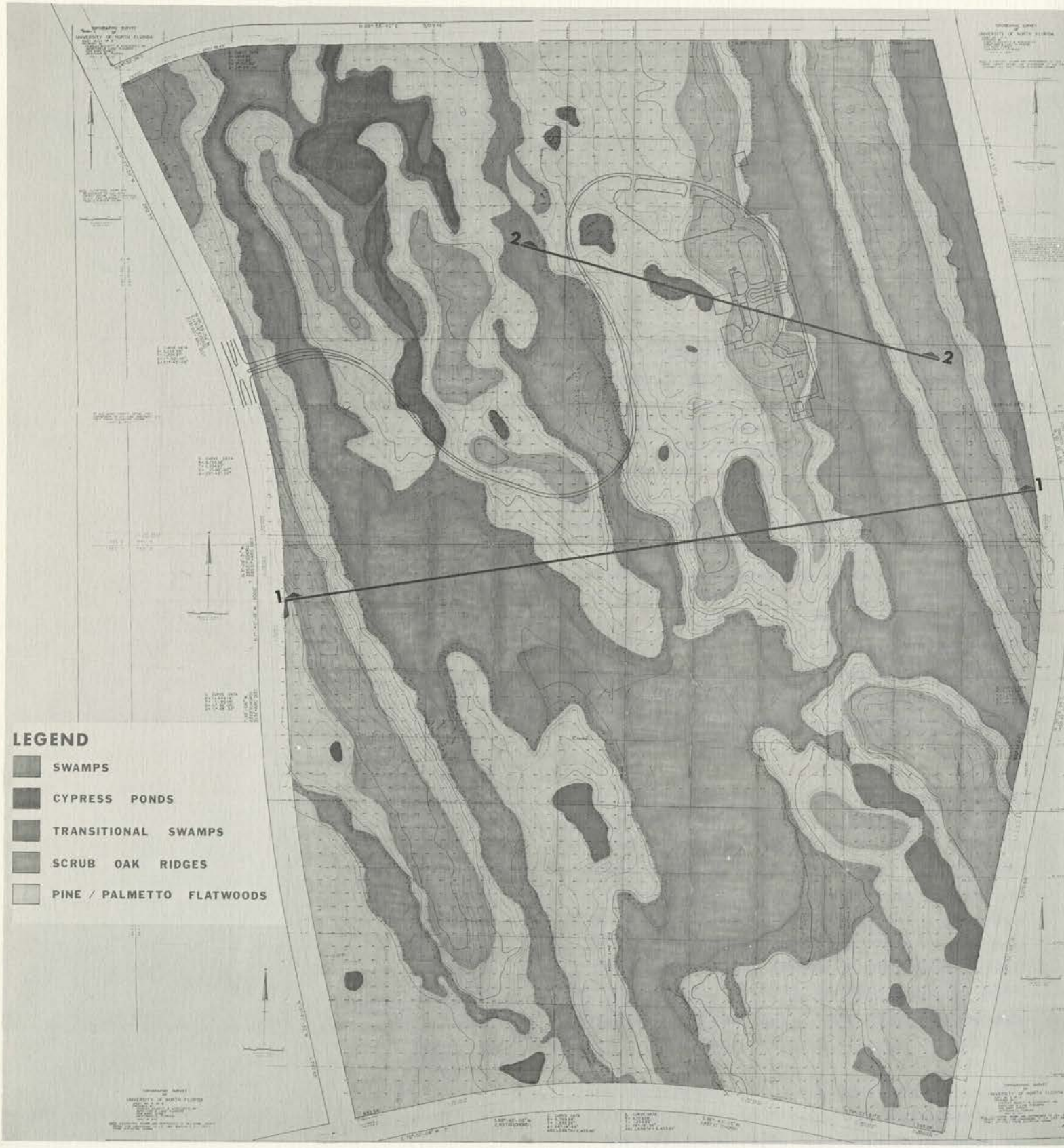
Topography & Drainage

The University of North Florida site, covering 1,000 acres of Atlantic Coastal Plain, is charac-

terized by striations of low, north-south ridges separated by relatively flat drainage sloughs. The elevation of the property ranges from below 25 feet to 50 feet and above, with a typically flat gradient. The water level for the area is 37 feet ±, The site encompasses five watershed areas, two of which comprise major drainageways. These areas are not well defined, and water does flow between these areas as conditions vary. Sawmill Slough and Boggy Branch contribute to the major drainageways, with improvements to Sawmill Slough diverting runoff from the north Sandalwood area into the site. A channel diversion, as requested by the Department of Transportation, directs water from Sawmill Slough to Buckhead Branch on the southern portion of the site.

Several areas of the site are subject to ponding due to a water table variation within the property of from ± 8 feet in the ridges to 0 feet in the swamplands. Several lakes are proposed within the campus as a means of controlling off-site drainage. The quantity of water from off-site runoff is a constantly changing variable and is influenced by construction in Sandlewood and other developments north of the campus. Future drainage systems require the flexibility needed for the control of this dynamic process.

Drainage considerations within the first phase of development primarily involve the retention of water in cypress pond depressions. A more extensive lake system is to be developed in later phases utilizing borrow for construction purposes. The impoundment of water in the lake system offers additional benefits not only with recreation islands and shorelines but also with the possible recharge of surface water storage.



Vegetation

The University site is characterized by five distinct ecological plant zones: Oak Ridge, Pine/Palmetto Association, Cypress Pond,

Transitional Swamp, and Swamp. The basic determinants delineating these zones are ground elevation and soil type. This results in the vegetation patterns visually reinforcing changes in the topography and drainage characteristics of the property. The vegetation pattern thus reflects the north-south bands of alternating site conditions.

The Oak Ridge and Pine/Palmetto Associations are xerophytic and delineate the sandy ridges. The Cypress Ponds occur in isolated depressions, which are generally inundated, and have localized underlying muck conditions. The Transitional Swamps lie along the ridge edges and Swamp Association zones delineating the major drainageways. These areas are characterized by the existence of extensive underlying muck and waterflow. A large swamp, with potential use as an ecological wildlife preserve, is situated in the southern part of the site at the confluence of Sawmill Slough, Boggy Branch and Buckhead Branch.

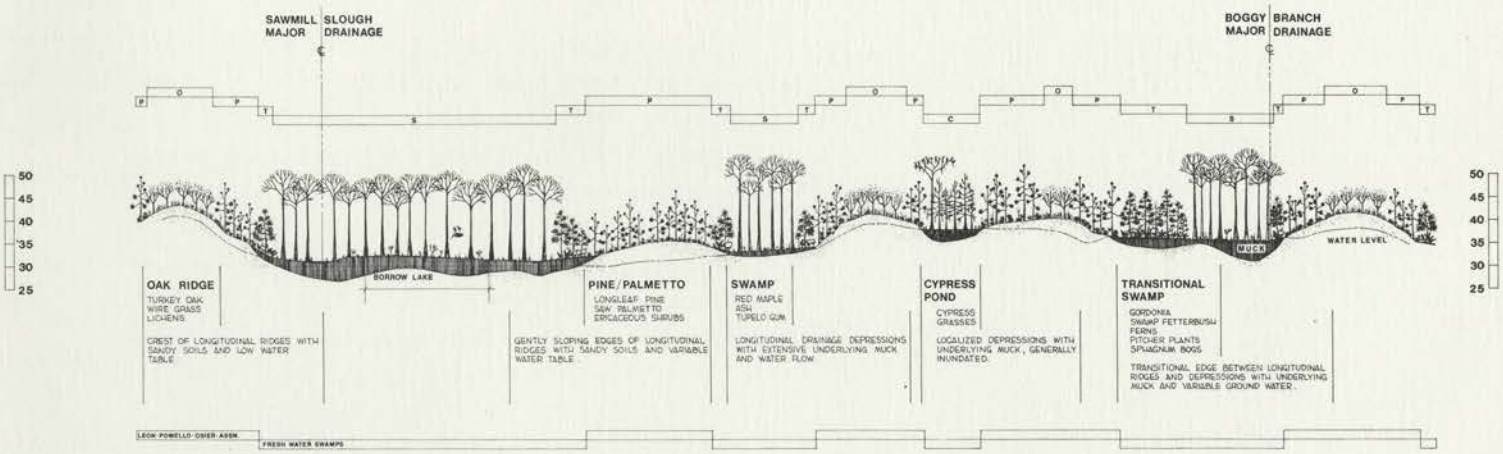
The distinct differences in the five plant zones, reflecting only minor elevation changes, imply the existence of a delicate ecological balance on the site. Alterations to the site are more critical in light of this balance, since changes have a direct influence on the vegetation and wildlife of the site. The present ecology represents a second balance that has established itself after destruction of the original site conditions. Portions of the property have been harvested for wood or turpentine and cleared on oak ridges for pasture land. Some logging also appears to have been done in the cypress zones, but all of these damaged areas are presently reverting back to their original state. The large swamp on the southern part of the property appears to have been least affected in the past and supports the largest specimen vegetation.

SITE FORCES

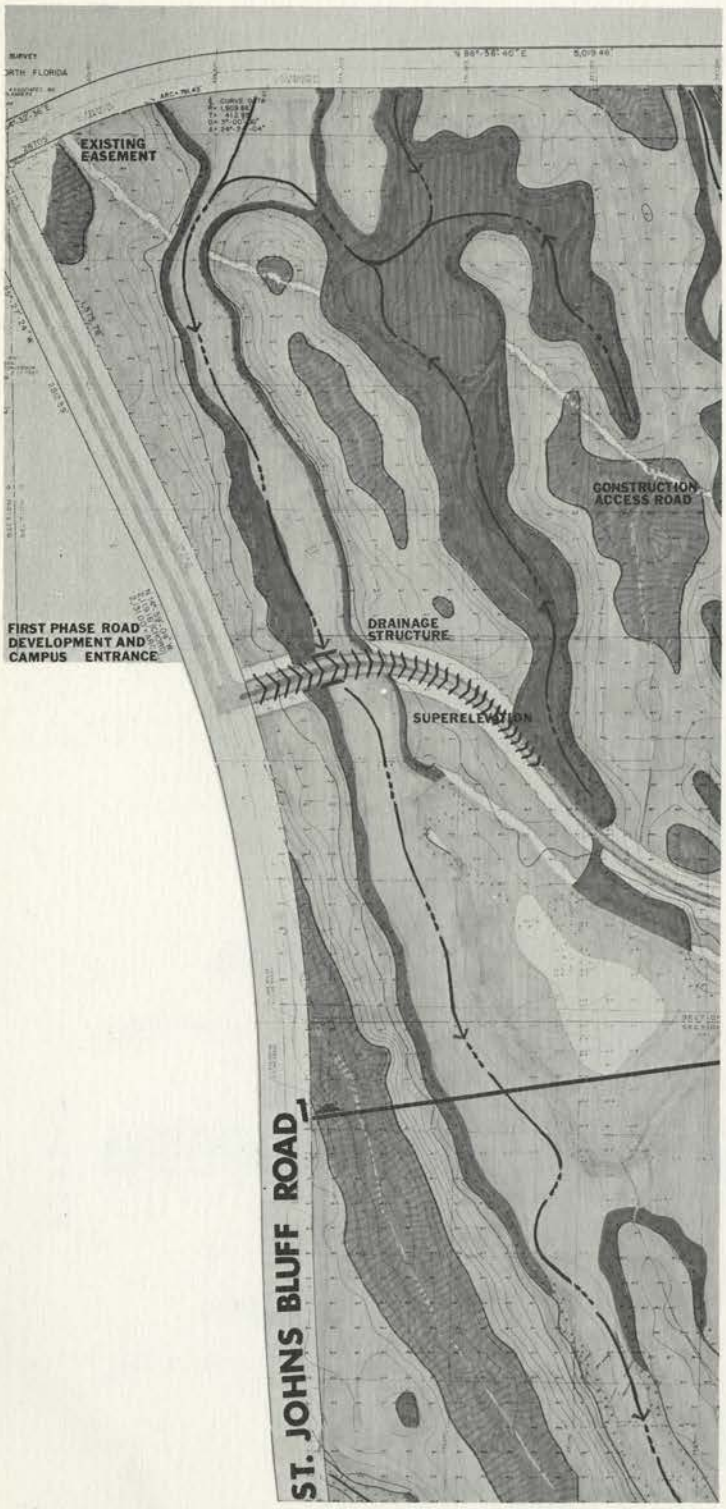
Site forces contribute to the structuring of the Master Site Development Plan by delineating natural limitations of the land

ENVIRONMENTAL FORCES

to be recognized, planned around, or altered. The environmental structure represents a composite of site components and their significance to the development potential of the land. Consideration of the 1,000 acre parcel owned by the University and its existing site forces reveals the essential landforms and their inherent implications for development. The two major drainageways indicate a potential development pattern that respects their natural courses, lest extensive and costly site alterations become necessary. Moreover, the ridges and wetland configuration imply a general direction for the alignment of roads and utilities. Site development ideally parallels the linear form of the ridge, diminishing environmental impact and site improvement expenditures. Development of the physical plant for U.N.F. also considers localized conditions requiring special treatment, for example, the conversion of cypress ponds to water retention basins.

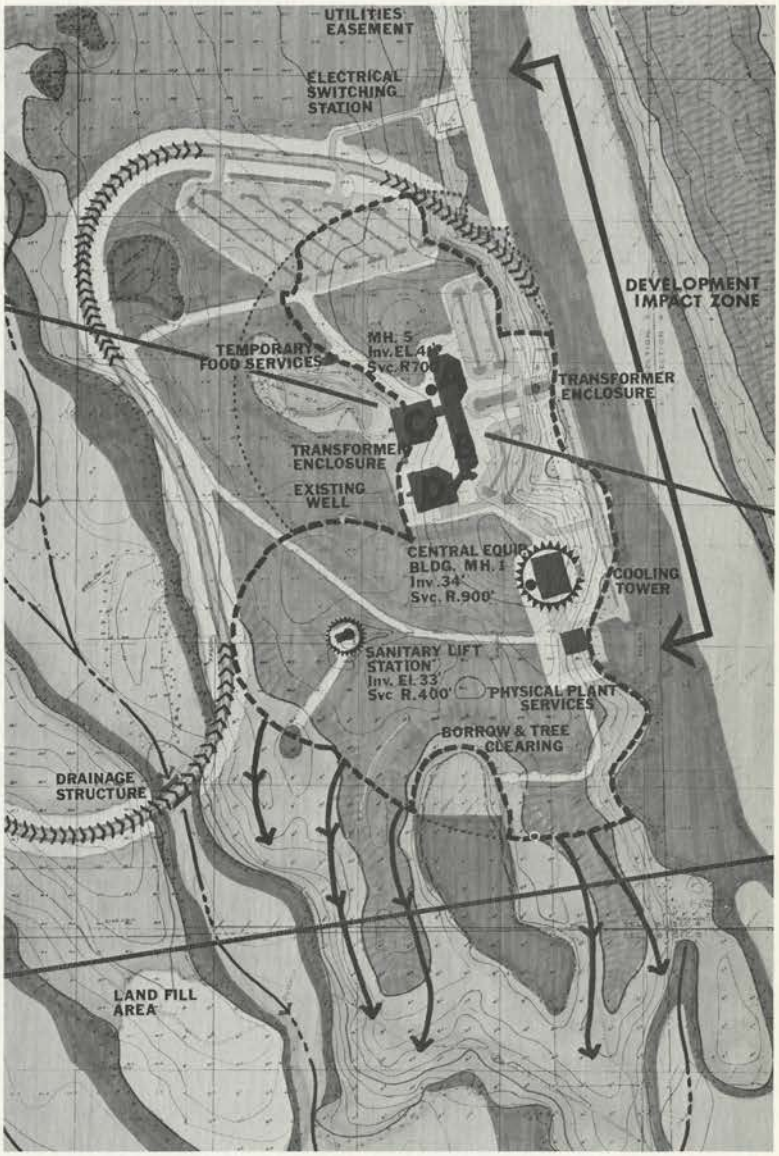


ENVIRONMENTAL STRUCTURE
SECTION - 1 SITE FORCES
HORIZONTAL SCALE : 1" = 200'
VERTICAL SCALE : 1" = 10'

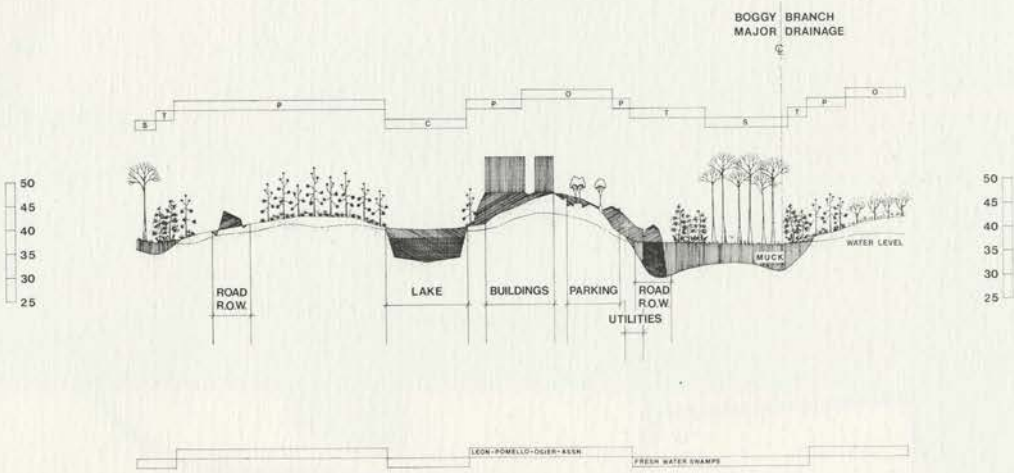


DEVELOPMENT FORCES

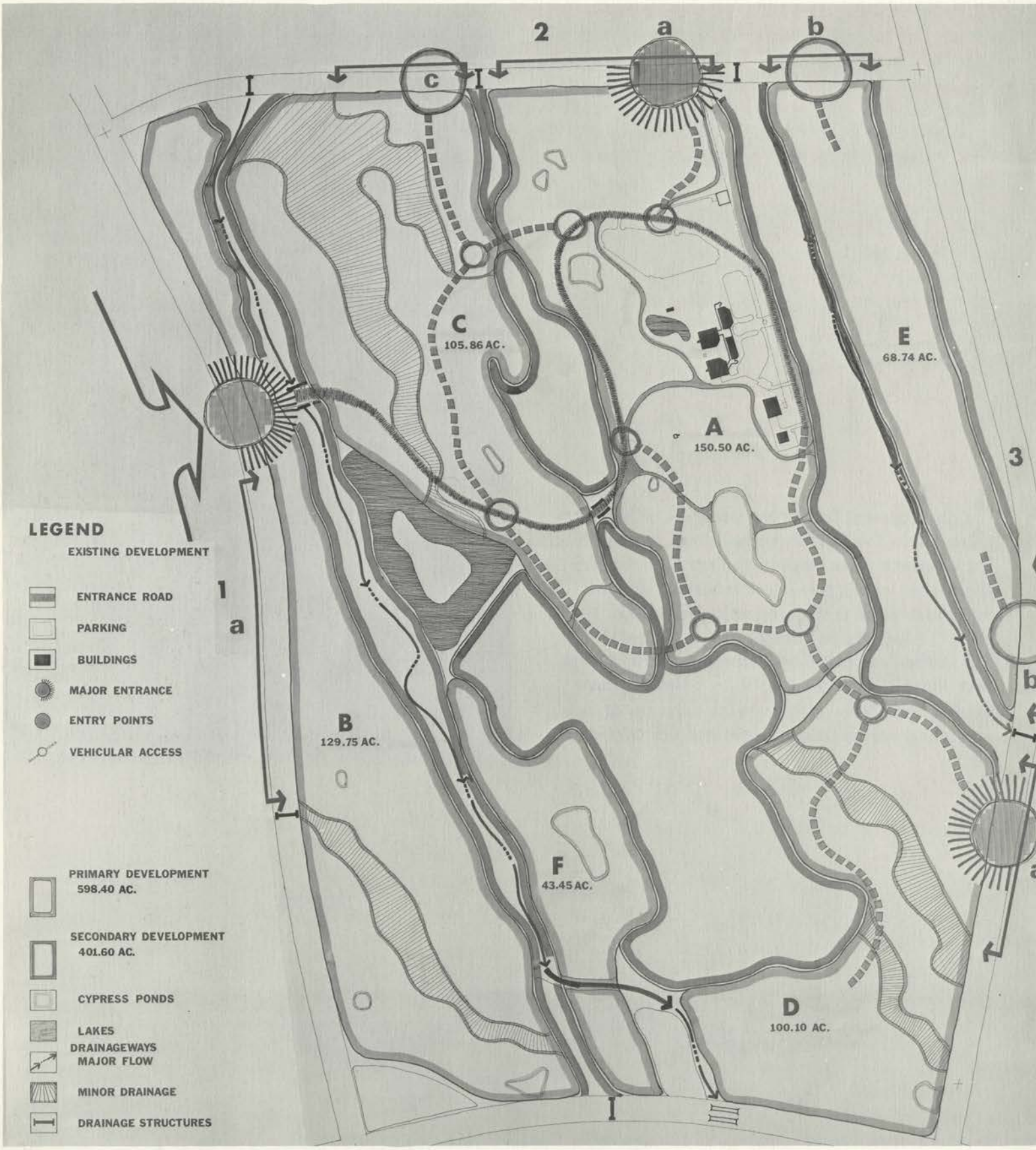
Development forces are those aspects of the physical plant which for planning purposes are considered existing. The drive from St. Johns Bluff Road is initially designed as the primary vehicular entrance into the campus. This superelevated roadway travels through a 150 foot right-of-way and incorporates two drainage structures, one at Sawmill Slough and the other at Buckhead Branch. A twenty acre lake with a recreation island, created by impounding water in Sawmill Slough, serves as an entrance feature. Excavated muck and peat, being unsuitable for construction purposes, is stockpiled east of the lake for possible later use in landscaping operations.



The development forces are strongest on the high ridge where the first phase buildings are constructed. The entrance road loops to the north of the first phase area where parking is located. A small man-made pond is situated adjacent to the initial University buildings. The horizontal and vertical circulation elements, servicing the first phase buildings, constitute a development force. The limits of the service zone for utility extensions are additional development considerations.



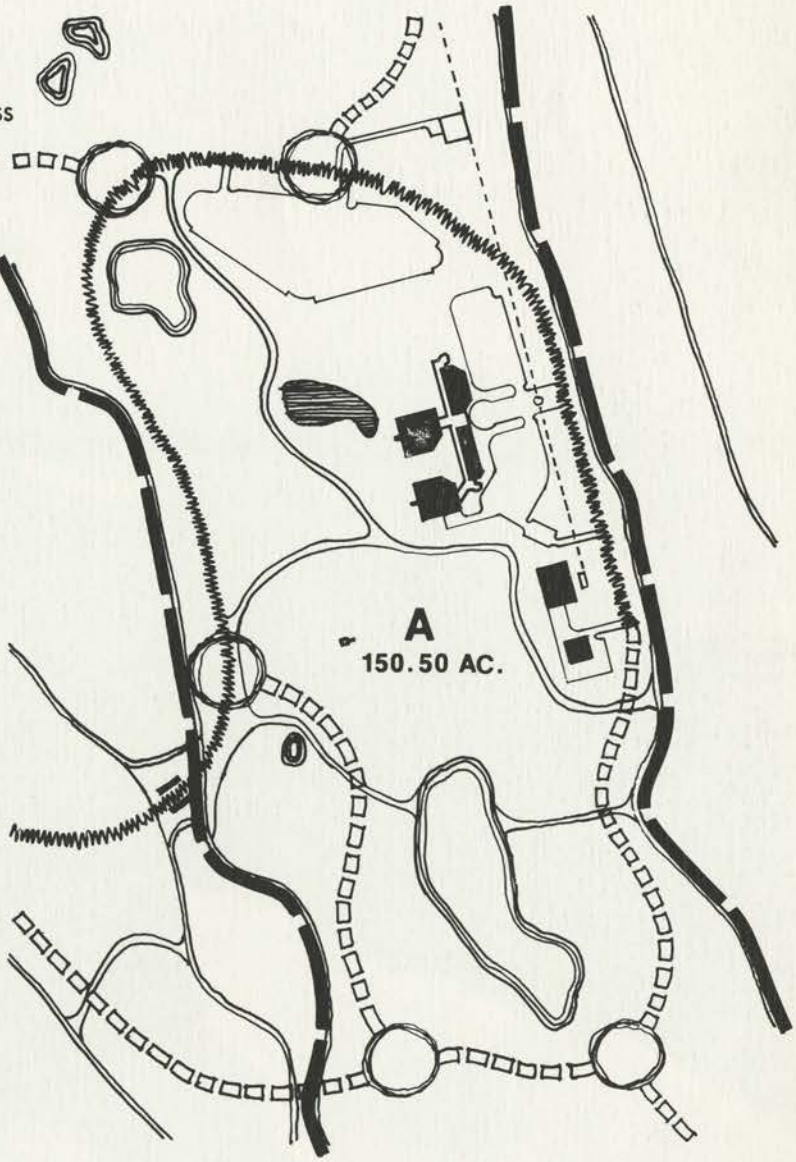
ENVIRONMENTAL STRUCTURE
SECTION-2 INITIAL DEVELOPMENT FORCES
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 10'



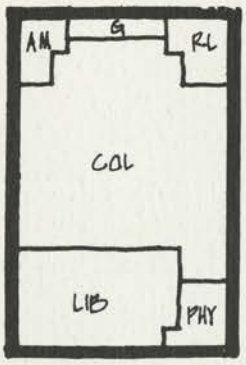
POTENTIAL DEVELOPMENT

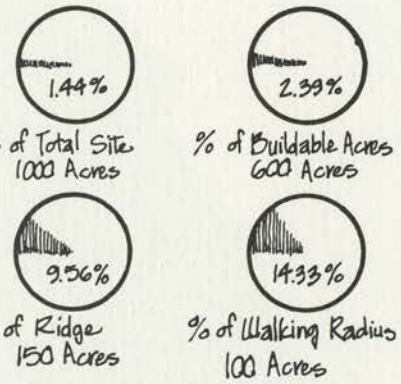
Based upon the environmental structure of the site, potential development zones are delineated to guide land use planning for the campus. Access into the site, circulation within the site, and intensities of use within specific areas are directed by the location of these development zones. Entry points, as part of the hierarchy of the road system, are indicated in relation to the major entrance off St. Johns Bluff Road. A possible major entrance and two minor entry points exist on the northern peripheral road. No entrance is envisioned off J. Turner Butler Boulevard due to the limited access nature of this artery. The peripheral road system and the land character of the property determine zones A, B, and C as the major servicable areas of the site.

The primary development ridges comprise about 60% of the site. The remaining areas, composed of swamps and drainageways, are classified for secondary development due to their inherent limitations. Zone A, encompassing over 150 acres, is the site of initial development for the campus. A diagrammatic circulation network connecting the various zones within the property, is delineated to show possible routes to the adjacent ridges.



III. ACADEMIC STRUCTURE





Building Ground Area Coverage 14.33 Acres

		G.S.F.	2 Sty. G.A.C.	Acres
AM	Auditorium Museum	50,000	25,000	.57
G	Gymnasium	30,000	15,000	.34
RL	Research Labs	60,000	30,000	.68
COL	Class., Off., Labs	760,000	380,000	8.72
LIB	Library	295,000	147,500	3.38
PHY	Physical Plant	56,000	28,000	.64
		*1,251,000	625,500	14.33

STATISTICAL PROJECTIONS

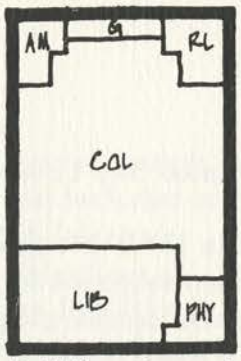
The University will occupy its initial buildings in 1972 and begin offering instruction to an estimated 1500 full time equivalent students (F.T.E.). By 1988, the student body is anticipated at 10,000 full time equivalent students with a staff of 1,868. The following classification of buildings and the gross square footage (G.S.F.) requirements are adapted from the Utilities Master Plan Report prepared by Reynolds, Smith and Hills, and dated July 26, 1971.

Building Classification

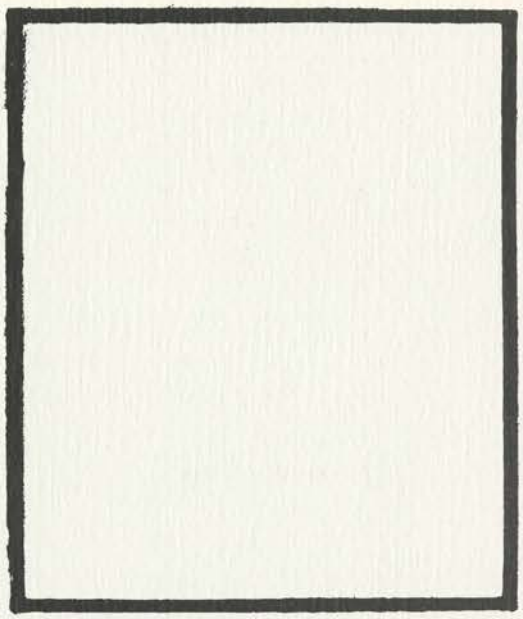
The physical facilities of the campus are organized into broad categories with classroom, office and laboratory space subject to re-assignment each semester. The library space is likewise subject to change in order to accommodate University growth and phasing efficiently. The standard employed for these projections is 125 G.S.F. per full time equivalent student.*

The accompanying diagram relates the G.S.F. to building ground area coverage, assuming a two-story building coverage. Acreage statistics are compared to percentages of the total site acreage, buildable land area, the primary development ridge and the acreage within a ten minute walking radius of the primary ridge. The diagram also delineates the relative space needs of the various building classifications and the actual G.S.F. figures.

*See Program Adjustments this section for projection changes.



Building Ground Area Coverage 14.33 Acres



Parking Ground Area Coverage 62.5 Acres

% of Total Site 1000 Acres

% of Buildable Acres 600 Acres

% of Ridge 150 Acres

% of Walking Radius 100 Acres

	No. of Cars	GAC in Sq.Ft.	Acres
Students	4,941	1,976,400	45.37
Others	1,868	747,220	17.13
	6,809	2,723,620	62.50

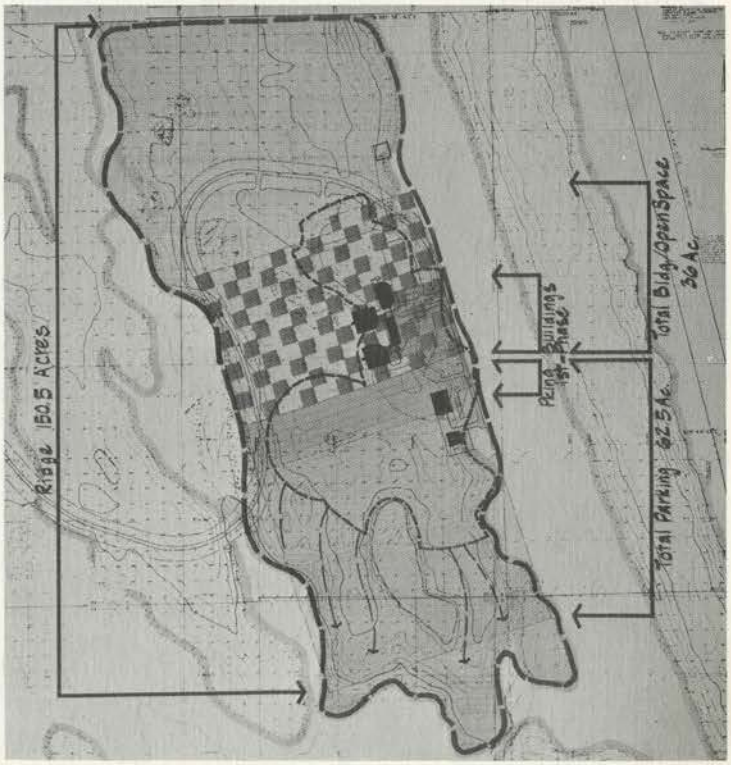
Parking

Since the University of North Florida is a commuter campus, parking considerations are of major consequence in the physical planning. The standards for determining required parking are one space per faculty and staff, one half space per F.T.E. student, plus visitor spaces. The standard used to determine the total parking ground area coverage per car is 400 G.S.F. Parking coverage is translated into acreage statistics and related as a percentage of the total site acreage, buildable land area, the primary development ridge and the acreage within a ten minute walking radius of the primary ridge. These percentages, combined with the building statistics, determine ground area coverage of the total campus development and its relationship to the physical site.

COORDINATION OF ENVIRONMENTAL AND ACADEMIC STRUCTURE

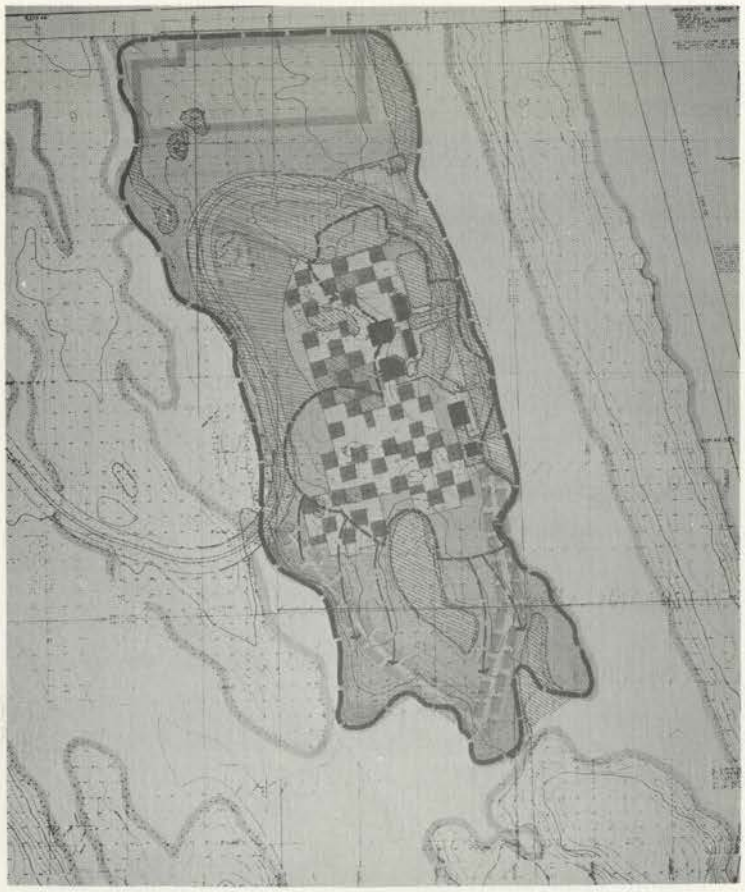
Site Coverage

Transferring the statistical projections into specific acreage requirements enables the application of total ground area coverage to the primary development ridge. Assuming an average two-story distribution of building coverage, including some high rise structures, with a 50/50 ratio of enclosed space to open space, the site coverage for buildings amounts to 36 acres.



Phased Site Coverage

The Utilities Master Plan outlines the development sequence for the University in nine increments commencing in 1972 and reaching ultimate projected development in 1988. Acreage statistics for each increment are superimposed upon the primary ridge to compare projections to the natural and development limits of the site. These limits include existing roads, parking lots, buildings, easements, and unsuitable building areas. In addition to the acreage required for buildings and parking, 12.43 acres are set aside for right-of-way completion of the loop road, and 20 acres are included for future athletic facilities. The phased site coverage diagram illustrates that the gross site coverage, as anticipated in the phasing program, can not be accommodated on the 150 acre ridge without adjustments in the applied standards.



Schematic Site Coverage

The schematic site coverage diagram concentrates buildings in the center of the ridge adjacent to the first phase development. This coverage is cognizant of the 50/50 ratio of enclosed space to open space and of the utility and phasing restraints of the physical plant. In addition to the building coverage, a 150 foot right-of-way is set aside for completion of the loop road, and 20 acres are shown in an appropriate location for athletic facilities. The schematic site diagram outlines a feasibile ground area coverage for all University needs with the major exception of parking. When these needs are interjected into the plan, a blanket coverage of the remaining undeveloped portions of the ridge occurs with the exception of one acre. This illustrates that the 150 acre ridge can not accommodate ultimate development through 1988 without further investigation into parking accommodations.

DEVELOPMENT PRIORITIES

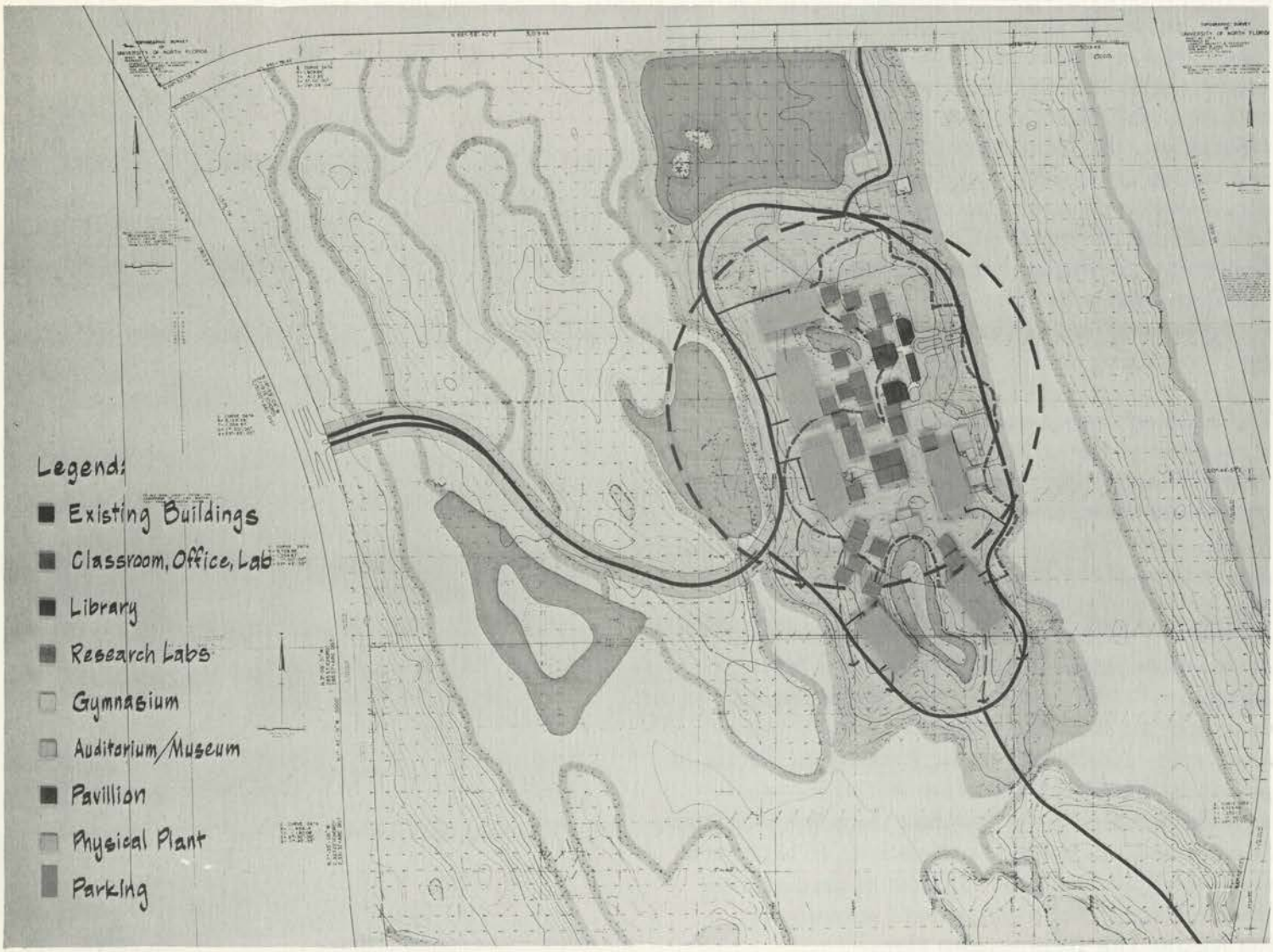
Synthesizing both the physical guidelines and the projected requirements from the environmental and academic structures, the following development priorities direct the evolution of general schemes:

All buildings and access to parking must fall within the range of a ten minute walking distance in order to accommodate pedestrian circulation. Parking is to be located in close proximity to building clusters with vehicular and service circulation confined to the perimeter of the campus. Additional consideration is necessary for the location of surface parking. In view of square footage in proportion to land within the loop road this parameter is twofold. First, if conditions dictate structural parking, the implications of this direction must be evaluated. As an alternative, the location of overflow parking and vehicular access on adjacent ridges requires consideration of supplementary transportation, land fill and drainage improvements. Although pedestrian circulation occurs primarily within the building clusters to eliminate pedestrian and vehicular conflicts, expansion of parking areas requires special consideration for crossing points.

The building arrangements function within the parameters of the utilities system or within its potential expansion. Inaccessible site areas are considered for parking, recreation, and open space. Should conditions warrant the location of uses outside of the present utilities system, the implications of duplicated services must also be evaluated. Generalized land uses of surrounding developable ridges and expansion areas incorporate a wildlife preserve, lake development, as part of the drainage system for water impoundment, and recreational uses. Pursuant to the above priorities, modifications to the initial intent of developing only on the 150 acre ridge are indicated. Study of various building and parking arrangements and consequent program adjustments precipitated the development of three general schemes for the Master Site Development Plan.

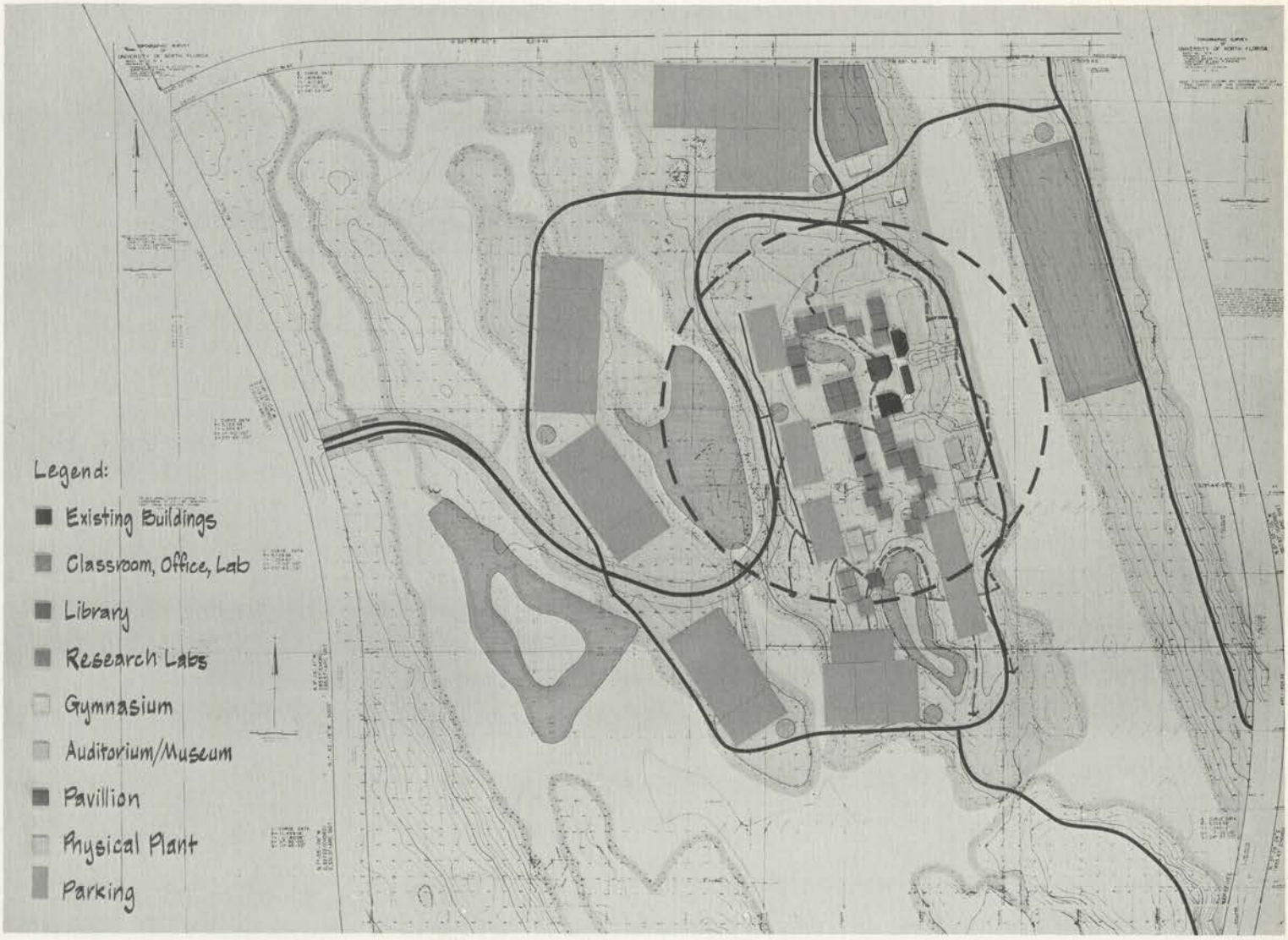
DEVELOPMENT RIDGE WITH STRUCTURAL PARKING

Scheme I placed all development upon the primary development ridge. This scheme represented an urban concentration of uses by utilizing vertical, rather than horizontal, space to meet projected campus needs. The economics of this scheme reflected an urban cost structure due to the use of mid-rise buildings with structural parking. Considerations for pedestrian crossings over the loop road were needed due to the volume of traffic brought into the campus center. While this solution utilized the least amount of land area, considerable site impact and high improvements costs were expected due to the intensity of uses envisioned.



DEVELOPMENT RIDGE WITH EXPANDED PARKING AND LAND USES

Buildings and parking were distributed on the primary development ridge and in surrounding land areas in Scheme II. This scheme utilized two development zones linked by land fill connections. The dual ridge development implied a dual utility system, presenting certain cost problems as the University expanded to the second development zone. This solution necessitated the removal of portions of the first phase roadway and the addition of alternate roads and entry points. The two ridges encompassed an intensive recreation area and lake adjacent to the campus core area.



DEVELOPMENT RIDGE WITH EXPANDED PARKING AND SHUTTLE SYSTEM

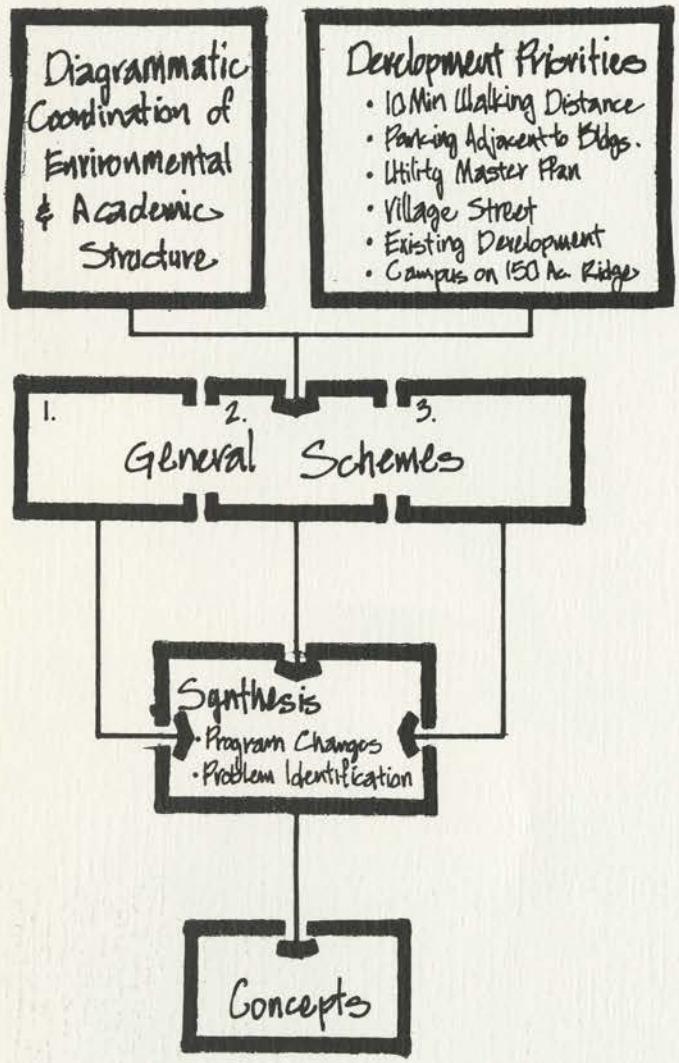
Scheme III concentrated the buildings on the ridge and accommodated limited parking for faculty, staff and visitors. The surrounding land was utilized for student parking with a shuttle bus system connecting the parking areas to the campus core. An expanded loop road system was envisioned as accommodating the shuttle buses. Additional means of travel between the parking areas and core area were incorporated into the site design for this scheme, such as bicycle trails. The recreation area in this solution was located on the ridge east of the loop road.

PROGRAM ADJUSTMENTS

Adjustments in the previous program projections include a reduction in total gross square footage for buildings from 1,250,000 to 1,000,000, giving an average of 100 gross square feet per full time equivalent student. This 20% reduction in program projections allows all gross square footage for buildings, to be sited on the 150 acre development ridge within the confines of the loop road. Building development retains the 50% ground coverage ratio. After siting of buildings, the plan includes as much surface parking as can be accommodated on the 150 acre ridge. The remaining square footage of required parking is located on the adjacent east ridge. This parking is accessible by pedestrian bridge connections.

Some initial phase parking areas and building sites are viewed as transitional in character. The structuring of the Master Site Development Plan accommodates phasing of temporary/permanent parking areas. Phase II buildings are sited according to the precepts of the overall Master Plan, considering the village street concept as the primary structuring element of the campus core. The remaining 850 acres are planned for general land use purposes during the projection period. The interior roadway system emphasizes strong relationships to the peripheral north road due to northern off-site development and the need for access to parking. The Physical Education/Recreation facilities are located north of the perimeter road, and direct bicycle access from the academic area to private, residential development is provided. Some recreational facilities are included within the academic building core along with the gymnasium.

IV. CONCEPT DEVELOPMENT



Concept development for the master plan includes exploring functional relationships of campus components, investigating the village street as the major structuring element of the campus and evolving a master plan framework. Alternatives for physical development are based upon criteria established by the University. This approach serves a dual role: first, to develop a compact urban campus in a semi-rural setting; and second, to translate major ideas characteristic of the village street into an "educational market place".

CAMPUS ACTIVITIES

Functional relationships of various campus activities determine their best arrangements relative to each other and to the site. The interrelation of educational activities groups the classrooms, offices and labs,and interspersed with supporting facilities. The result is a comprehensive campus plan structured by the village street. Major determinants for functional relationships of the U.N.F. campus are the administrative concept of central space assignment and the University's classification of components.

Due to the low, gross square foot assignment per full time equivalent student, efficient use of space is a critical consideration for the University of North Florida. Central space assi ınment is a response to constant changes of emphasis that occur within higher educational programs. For maximum utilization, all educational spaces are designed to be multi-purpose and subject to re allocation on an annual basis. Relative to the re distribution concept of central space assignment, the classification of components includes classrooms, offices, and labs. Facilities in support of these components include student services, gymnasium, auditorium/museum, research labs, library, building service facilities, and an open air, general use pavilion. Being a commuter oriented campus, dormitories are not a consideration, and accommodations usually provided by a student union and dining hall, are included in the student services classification.

FUNCTIONAL RELATIONSHIPS

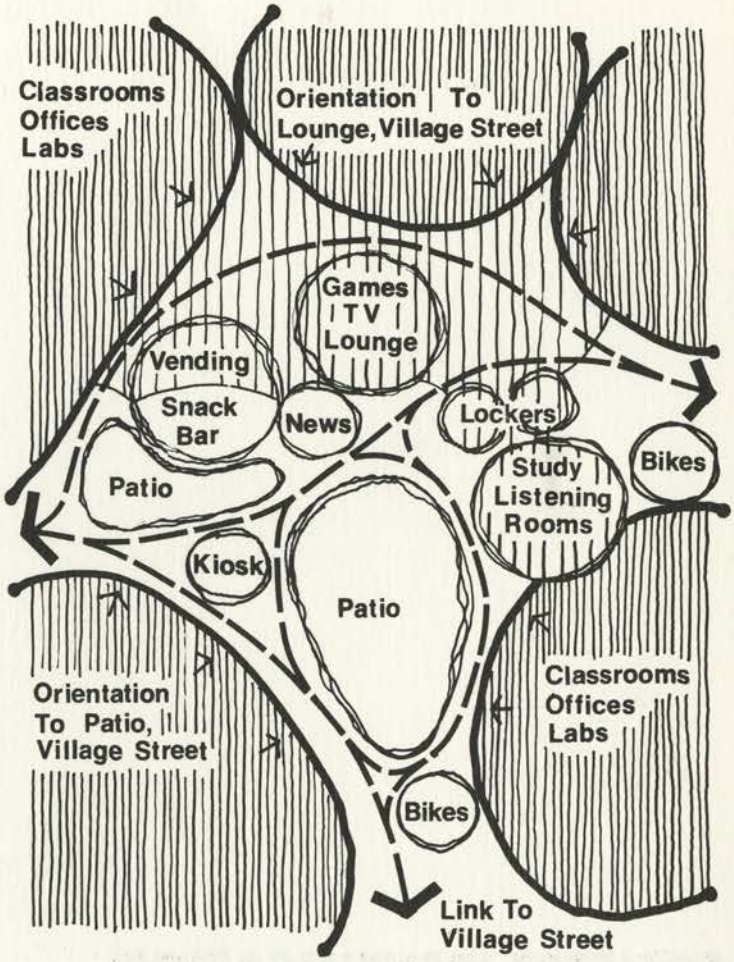
During stages throughout the projected growth period, student service centers are included as part of the classroom, office, and laboratory buildings, providing various combinations of facilities. A possible list of these facilities is as follows:

Study Rooms	Drugstore
Food Service	Newsstand
Snack Bar	Arts and Crafts Area
Theater	T. V. Lounge
Game Room	Music Listening Rooms
Lockers	Student/Faculty Commons (Lounge)
Bookstore	Campus Newspaper Offices
Post Office	Student Organization Offices
Radio Station	

ARRANGEMENT OF COMPONENTS

This multi-center approach to student services allows for flexibility and change according to demands which become evident in each new phase of growth. Student services form a functional link between the village street and the academic facilities of the campus. The emphasis and orientation to either exterior or interior spaces vary according to the type of facilities provided. Participation by faculty and staff in the student centers promotes interaction among the campus populus as part of the total learning experience.

Criteria for the arrangement of campus components includes location and accessiblity of supporting facilities according to their specific role in the overall function of the campus. Walking distances relative to accessibility imply limitations to the physical dimensions of the academic zone. Primary student services, including the bookstore and food service area, are located with the library in a central core. The major library complex is central and relates to expansion within the academic zone both to the north and south. Additional student services are interspersed with classroom, office and lab buildings. The commuter, who historically uses campus facilities less extensively than the resident student, is thus accommodated by a well distributed system of



facilities. Supporting uses are located on the periphery of the academic campus in combination with parking and open space. This arrangement of campus components forms an intense core surrounded by a band of less intensive development of buildings and parking which serves as a transition to the semi-rural character of the site.

THE VILLAGE STREET CONCEPT

The central theme for physical development of the campus is the village street. This concept involves development of a place where the pedestrian can circulate within the equivalent of a small town business district. It serves as a direction within which student-user spontaneity and administrative guidance can determine the evolution of the village street and its attendant characteristics. On the U.N.F. campus, the village street is essentially a cohesion of identifiable places for commuter oriented students to study and share learning experiences. Flexibility and variety in the development of the village street provide a number of gathering areas. Improvised stages for festivals, concerts, displays and seminars allow the opportunity for expressing different areas of interest without potential conflicts and incompatibility. The intermingling of people creates activity, which gives the personal security associated with the village street.

EXAMPLES AND CHARACTERISTICS

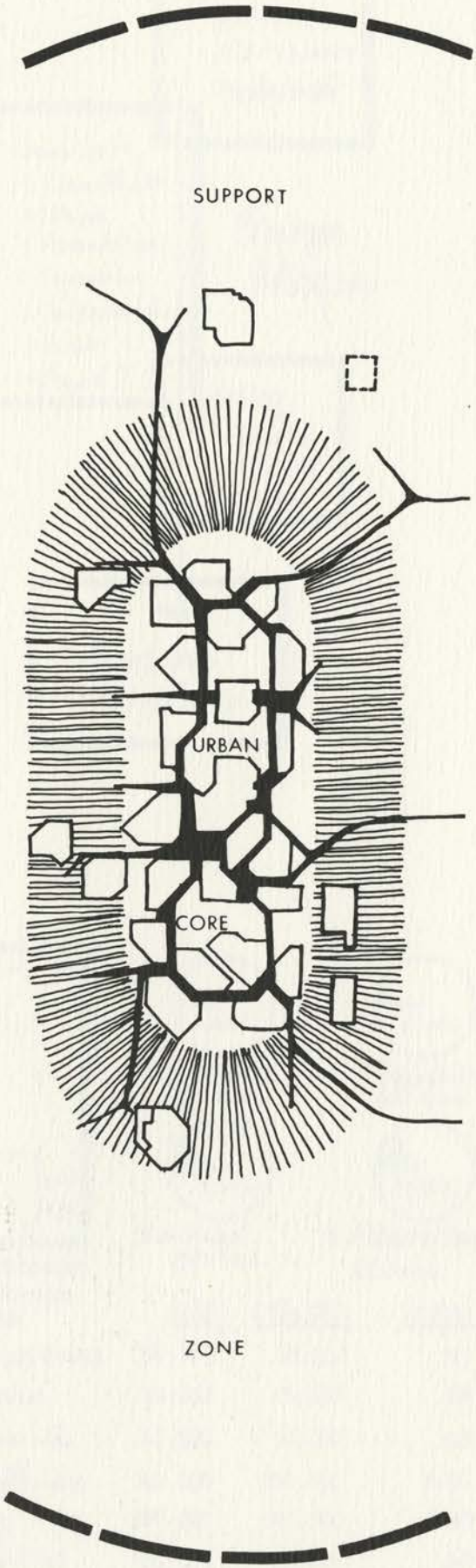
The basic characteristics that comprise the guidelines for development of the village street are : (1) spatial definition to achieve a pedestrian scale; (2) the incorporation of specialty uses or attractions; (3) contiguous scenic areas and special transportation access; and (4) unity in detail and materials. A brief analysis of three "village streets" in-

dicates a generalized evaluation of qualities characterizing these areas. The examples are St. George Street in St. Augustine, Florida; Underground Atlanta in Atlanta, Georgia; and Park Street in Winter Park, Florida.

Spatial definition to achieve a pedestrian scale is typical of the above examples. Underground Atlanta is composed of renovated industrial buildings within a confined area. The interconnected buildings form plazas and a variety of pedestrian spaces. St. George and Park Streets also consist of a number of buildings with niches, alleys and short side streets. Although the latter two examples have vehicular circulation, both are periodically limited to pedestrian use only. However, the areas are designed to give the pedestrian the opportunity to leave the vehicular streets and circulate into alleyways of shops. The sense of travel distance seems shortened due to broken, limited sightlines and the concentration of a wide diversity of attractions. The architectural definition of spaces relates to the pedestrian scale by creating connected walkways, which are irregular in configuration and partially enclosed. The spatial definition of these village streets is also characterized by changes in direction and level.

The incorporation of specialty uses or attractions is another characteristic of these areas. All examples are composed of commercial specialty shops, cafes, art shows and folk festivals. Moreover, Park Street accommodates a mixture of commercial and office facilities which function as part of the central business district. The examples reflect the evolution of previous cultural uses with the resultant changes in existing structures and street frameworks. Overhead enclosures, such as canopies and covered walkways, vary the definition of spaces and constitute a diversity of visual attractions. Displays are generally oriented toward the pedestrianways and are housed in a variety of niches. This arrangement conveys a changing sequence of events and gives the pedestrian many alternative circulation patterns.

The village street examples have contiguous scenic features, such as parks or waterfronts, and utilize special transportation, such as trolleys, horse-drawn carriages or shuttle trains.



Although the village street concept revolves around the pedestrian, with cars and parking relegated to peripheral areas, bicycles and service vehicles are compatible with the interior circulation when limited to specific areas. The examples are located in proximity to business districts, ranging in size from metropolitan areas to a small town, and generally function as part of a larger district containing additional attractions. Design details give strong unity to the variety of spaces and include coordinated graphics for directional signs, appropriate lighting fixtures and planters, textured paving for differentiation of use areas from circulation paths and color coordination.

RELEVANCE TO THE U.N.F. CAMPUS

Having investigated examples of village streets, general qualities adaptable to the U.N.F. campus were determined. The relevance of these characteristics to the campus assist the master plan in establishing the theme for physical development. The objective of the village street is best described as providing an environment that accommodates the exchange of general knowledge and academic learning.

The pedestrian scale of the U.N.F. village street contrasts the larger scale buildings and forms a connecting membrane between the structures. The continuity of buildings and exterior walkways strengthens the concentrated use of space. Irregular in configuration, the spatial definition of the village street potentially accommodates diverse partitioning into niches and plazas for outdoor, academic use. The anticipated additions of special activities throughout phased development are in accord with the flexibility of central space assignment criteria and are subject to changes with the subsequent growth of the village street. Covered walkways and open space form a consecutive network of alleyways accommodating various pedestrian accessways from buildings to peripheral parking areas.

The semi-rural quality of the site contains numerous possibilities for contiguous scenic features, including lakes, recreational facilities, ecological wildlife preserves, and botanical centers. Pedestrian circulation within the village street changes from sophisticated, urban walkways to rustic trails that lead to adjacent ridges, lakes and swamplands. With vehicular traffic confined to the peripheral loop road, pedestrians utilize foot bridges to cross Boggy Branch from the east parking ridge to the campus. These pedestrian links also serve as bicycle access and potentially accommodate a compatible shuttle car system in later stages of development. The intensity of development decreases outward from the core in a hierarchical pattern to less intensively developed site amenities surrounding the urban campus. From the outer edges of the buildings to the vehicular circulation loop, the peripheral parking areas form the transition zone between the development core and the contrasting, semi-rural site.

HIERARCHY OF PEDESTRIAN SPACES

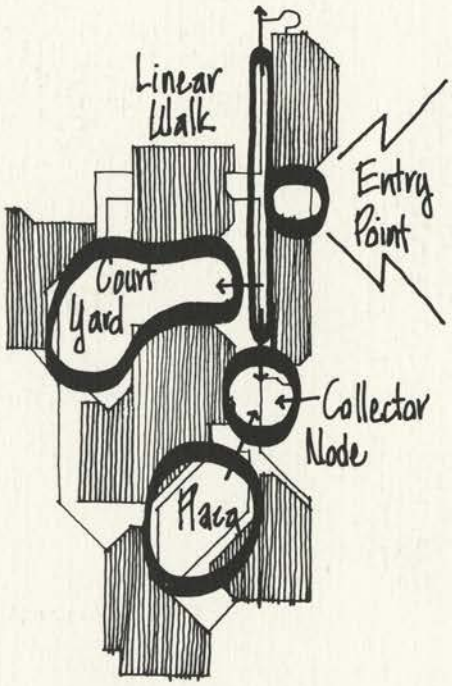
Characteristics of the preceding village street spaces are generalized to convey five primary types of pedestrian areas. These are expected to be multiple use spaces in context with the intense degree of activity associated with "an educational market place".

The five primary types of pedestrian spaces are as follows:

Entry points provide access from parking lots and pedestrian bridges into the building perimeter. These points are important transitions between outside pedestrian circulation and the village street.

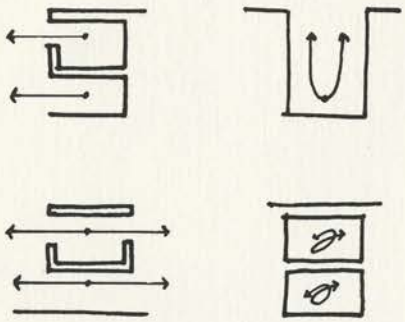
Linear walkways accommodating through circulation between destinations, may be partially enclosed and link the following three types of spaces.

Collector nodes are pedestrian intersections for through circulation or serve as temporary waiting points. Nodes are distributory as well as collectory in nature, such as areas around exterior stairwells.



Courtyards are interior and exterior spaces adjacent to classrooms, offices, or laboratories and serve as intimate areas for small groups of people.

Plazas are major, exterior gathering spaces, central to building clusters, and generally serve as culmination points along the village street.



The form and scale of the village street are, to a large degree, determined by the relative dimensions and enclosures of defining elements. A streetscape utilizing multi-level, covered walks is appropriate to the climate of north Florida. When incorporated into the building system, it provides a total site circulation system. This exterior, pedestrian system permits the virtual elimination of expensive, indoor, traffic arteries and provides the potential for a wide variety of environmental spaces. This variety of spaces, conducive to different types of functions, promotes social interaction within the academic zone.

Culmination of the concept development into a master plan framework includes the input of both site and development forces. In combination, the direction for subsequent phases of development is established on a common theme. The optimum association of campus functions is applied to the elongated 150 acre ridge and the 60 acre ridge to the east. Topography, vegetation, and soils, as well as development prior to commencement of the Master Site Development Plan, provide guidance for this framework. Previous development forces include the following:

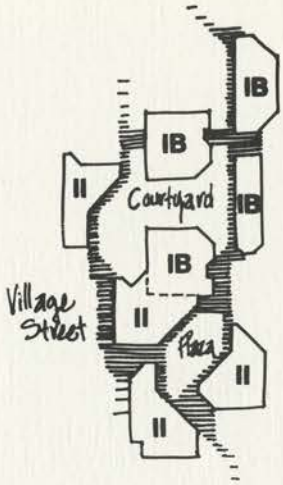
(1) The six buildings of Phase 1-B with two-story building height average; 50% ground area coverage; connecting covered walkways;

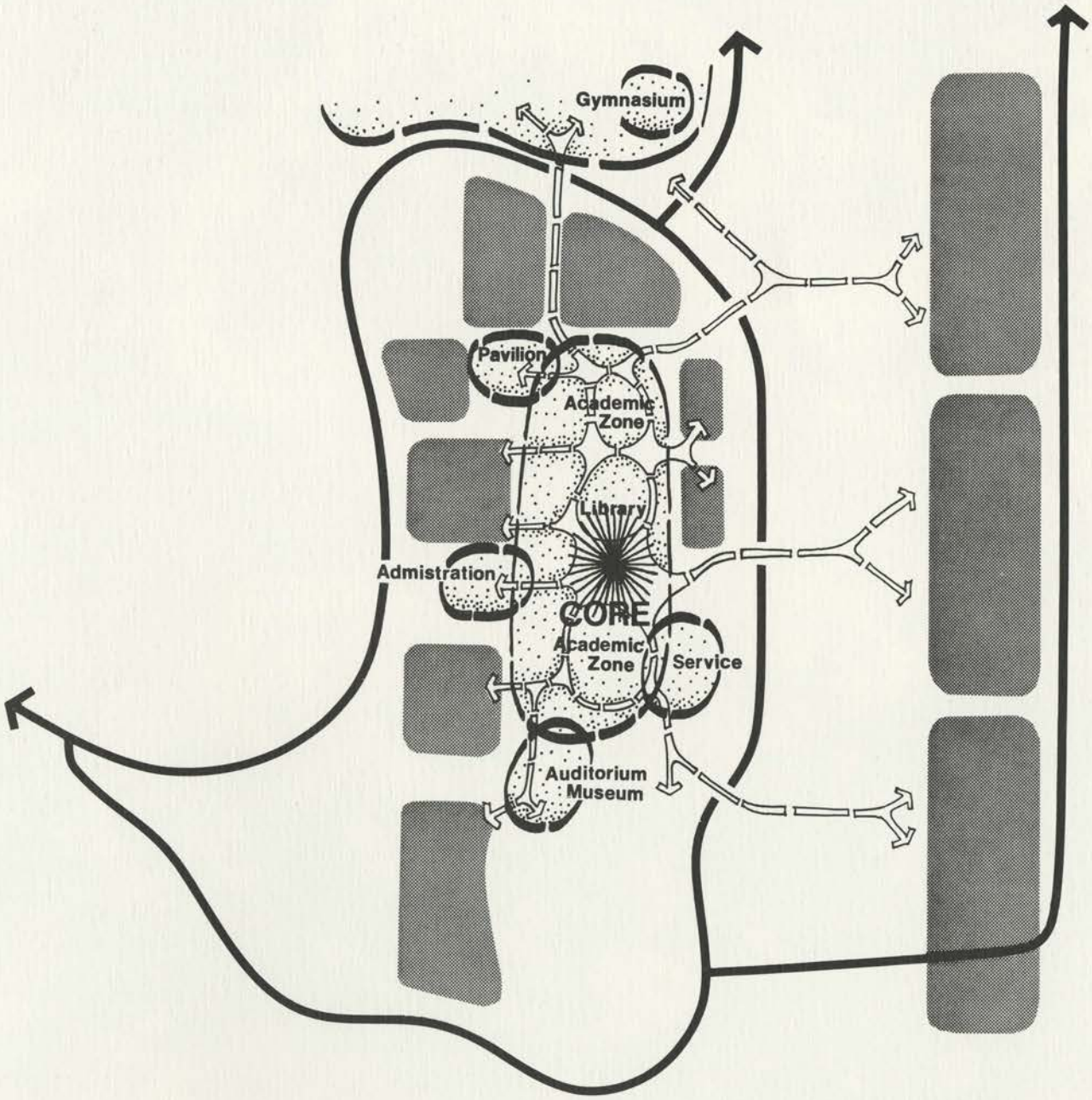
(2) The master utility plan with a limited service area for the sanitary system, central hot water/chilled water system;

(3) Roadway and parking development separating the north end of the ridge;

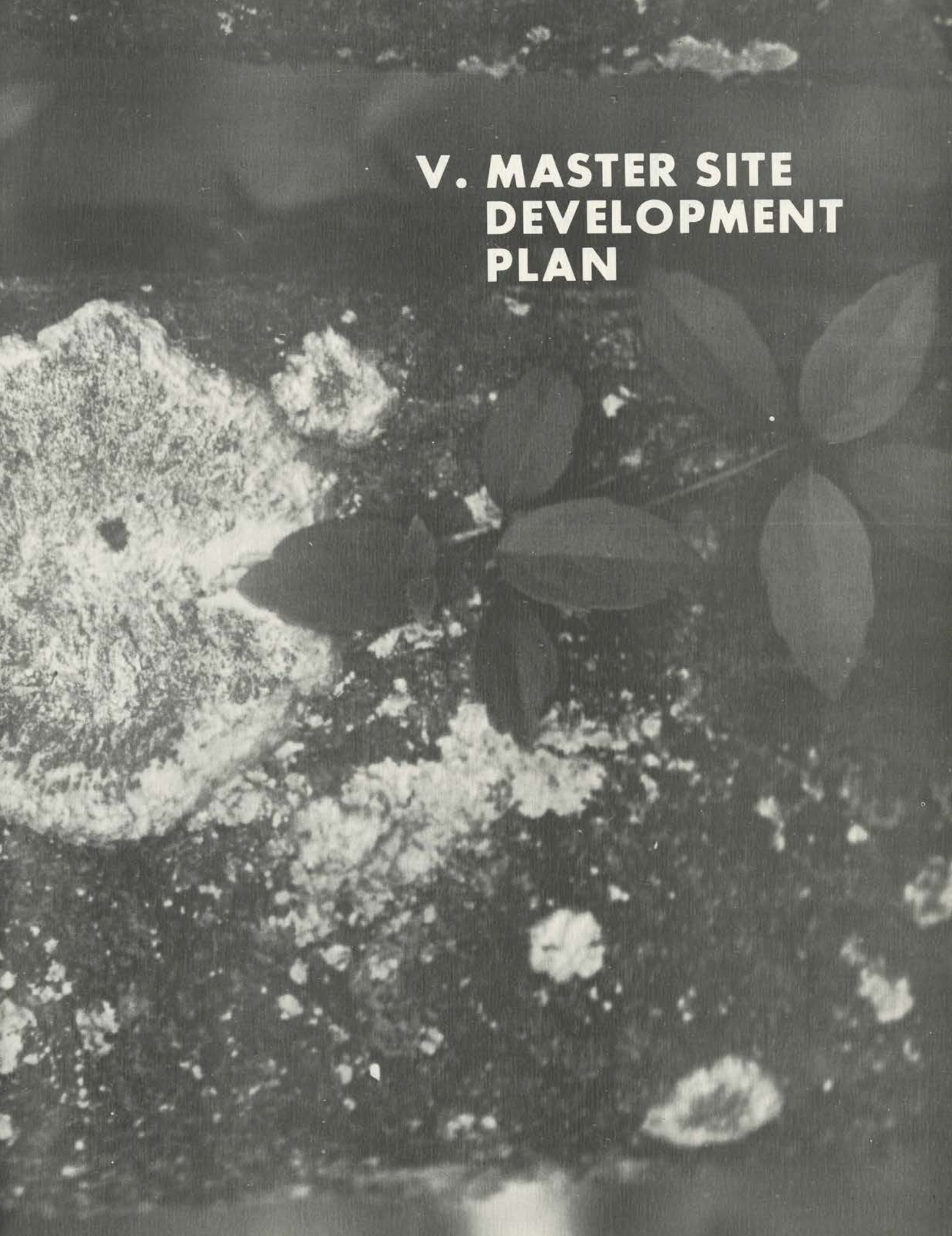
(4) Site development including lakes and ponds.

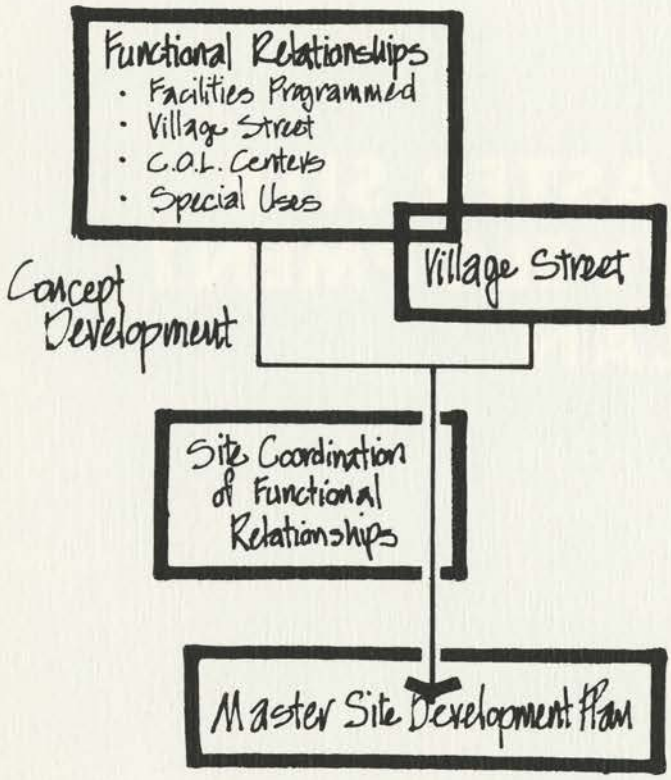
The first development reflecting this framework occurs in Phase II. Recognizing the above, 120,000 gross square feet for classroom, office, laboratory, library, and student service facilities are sited and structured by the village street. Phase II expands the I-B cluster to the west and south and makes an addition to the existing library space. This approach allows for the initial formation of the village street beginning with two, parallel, north-south avenues. It terminates the long, straight axis of 1-B, initiates a western avenue, and defines the first courtyard. The major activity center, related to the library cluster, is likewise initiated.





V. MASTER SITE DEVELOPMENT PLAN



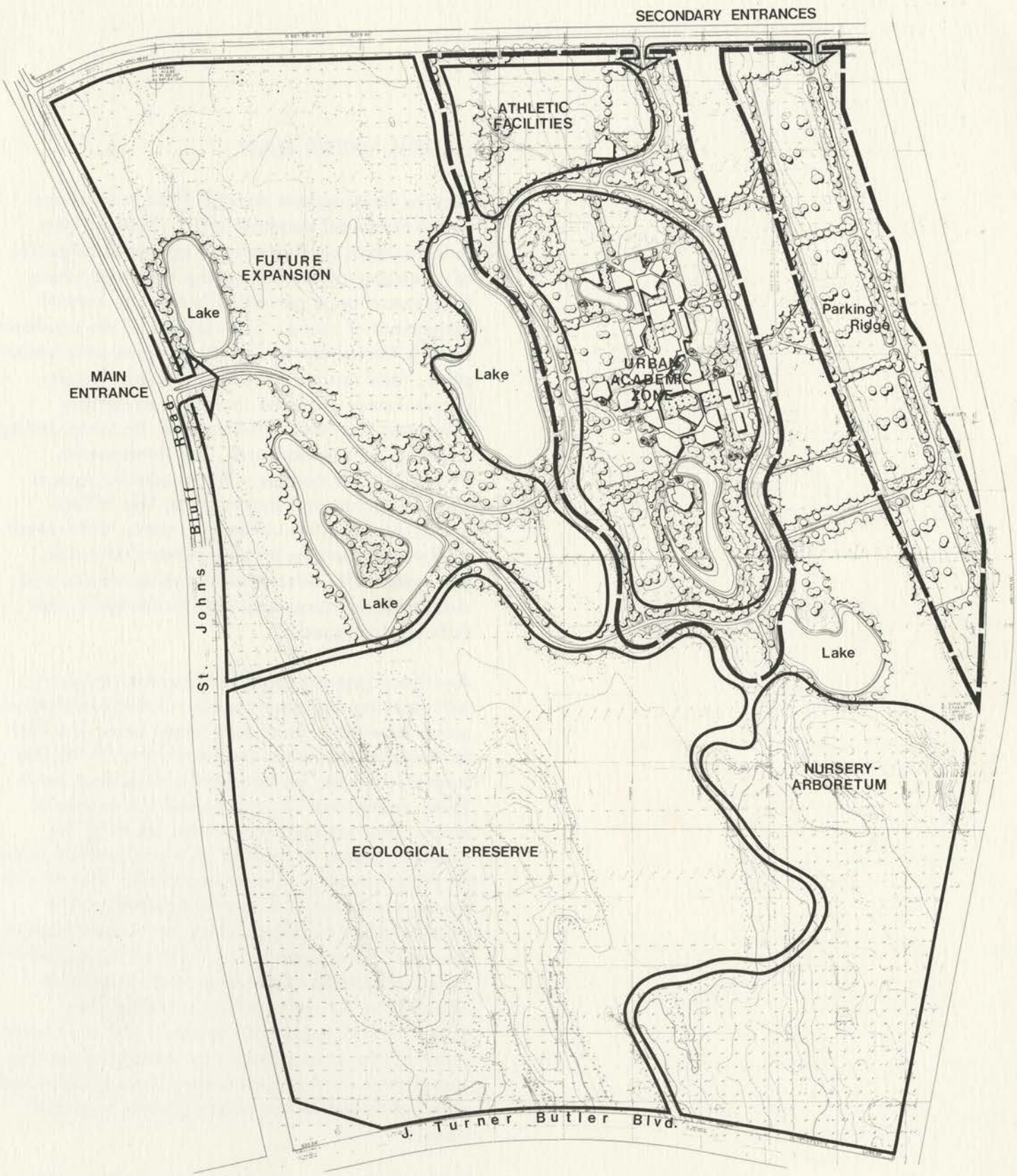


Based upon the selected concept, the Master Site Development Plan establishes the framework to accommodate 10,000 full time equivalent students by 1988. The development consists primarily of a compact academic core with all facilities within a ten minute walking distance. This core is encircled by a zone of supporting uses, all located within a 15 minute walking distance of major campus functions. The Master Plan is a graphic expression of campus uses and their organization providing the structure for specific planning decisions in the future. It does not depict predetermined shapes for actual buildings.

GENERALIZED LAND USES

Of the 598.4 acres of developable land identified by the environental structure, two ridges, "A" - 150.5 acres and "E" - 68.74 acres, accommodate campus growth through 1988. The generalized land use proposed for the campus supports the urban academic zone. Development surrounding the urban core acts as a physical buffer from future development north and east of the campus with athletic fields and parking. The nursery-arboretum and ecological preserve, located to the south, and the 2500 foot wide undeveloped area, located also to the west, also provide buffers for the academic core.

The nursery-arboretum, located on a 100 acre ridge, includes the five ecological plant zones found on the site. This use permits the cultivation of any plant desirable for future development, as well as, the opportunity to establish a multitude of specimen plants for study purposes. These ecological plant zones are also represented in the proposed ecological preserve, 120 acres of the lower Buckhead Branch. The nursery arboretum and ecological preserve are in keeping with the dedication of the campus as a wildlife sanctuary. Access into the site is accommodated by three entry points, with the main entry from the west off St. Johns Bluff Road and two secondary points from the north. Each entry drive connects with the campus loop and is highlighted with scenic views of lakes, ponds, vegetation and buildings.



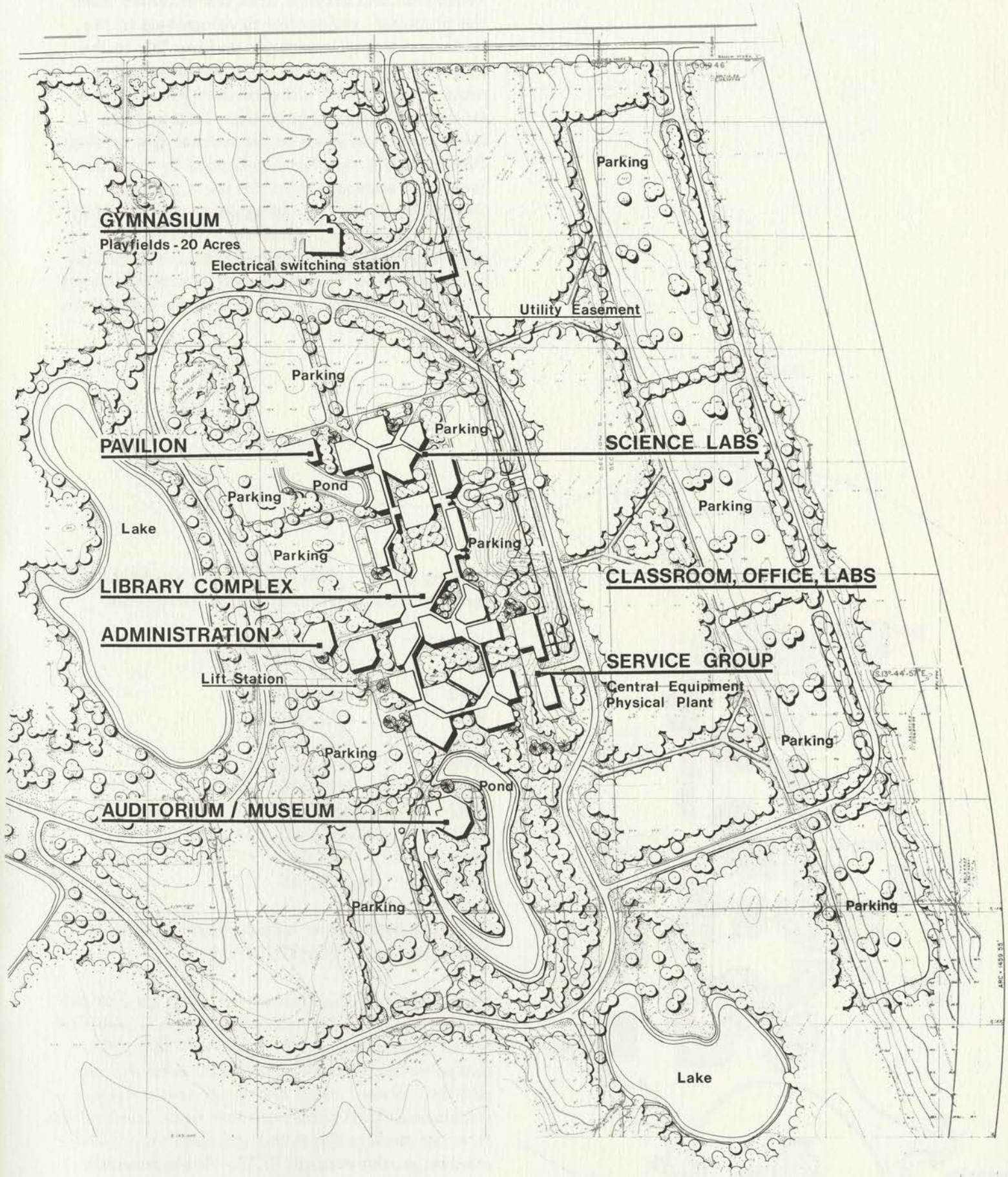
GENERALIZED LAND USES

CAMPUS MASTER PLAN

Campus development through 1988 is localized in the northwest quadrant of the U.N.F. site. It is an urban academic zone composed primarily of classroom/office/laboratory buildings whose functions change periodically through central assignment of space. The nucleus of the academic zone is formed by the library complex with bookstore, food services and other student-faculty conveniences provided in classroom/office/laboratory centers. Five centers, accommodating a variety of conveniences, are interspersed throughout the campus. The academic zone is interconnected and structured by the village street, which often utilizes covered, multi-level walkways. Serving primary pedestrian needs, this system also accommodates some service and maintenance access and links buildings to well defined open spaces.

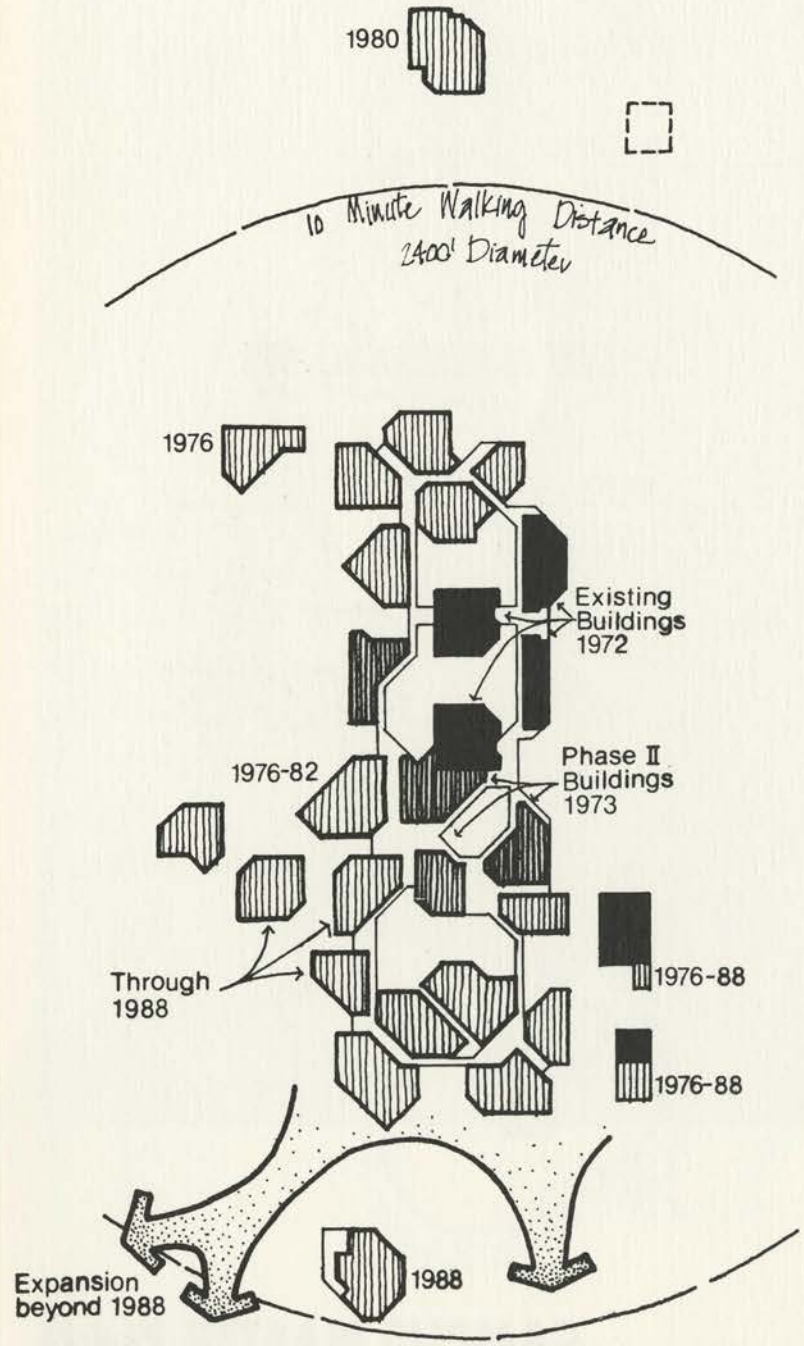
Ancillary uses are located along the periphery, with parking and open space. The administrative group provides a front door image being the first buildings experienced by the visitor. A 10,000 square foot open air pavilion is sited on a small lake, convenient to parking and the academic zone. The auditorium/museum, south of the academic zone, is located on a peninsula created by the excavation of a cypress pond. The service group, composed of a central equipment and physical plant building, is on the eastern edge of the zone. The gymnasium, north of the academic zone and outside of the loop road, is located adjacent to the major athletic and parking areas. Future expansion beyond 1988 can continue south of the campus proper by relocating parking and passive recreational areas. Four recreational nodes of intensive use punctuate the academic zone.

Auto circulation, planned to minimize conflicts with pedestrian circulation, is limited to parking lot access drives. Service drives are a continuation of the parking pavement and in some instances share the pedestrian system during off hours.



CAMPUS MASTER PLAN

Pedestrian and bicycle links are provided from the proposed, residential developments to the north and major, commuter parking lots to the east. Three pedestrian links from the east cross Boggy Branch via combined land fill and structured bridges. Pedestrian intersections include seating areas in the natural site setting. Primary utility service is provided by the 105 foot wide easement from the north property line to the service building group, distributing water, electricity, telephone, heating and air-conditioning. Sanitary sewage is collected by gravity flow to the lift station and discharged to a city treatment plant via a force main in the utility easement.



Phasing of the 1,000,000 gross square feet required through 1988 is planned in nine increments:

Year	Gross Square Feet	
1972	150,000	
1973	270,000	
1976	375,000	*
1978	455,000	*
1980	551,000	*
1982	671,000	*
1984	775,000	*
1986	895,000	*
1988	1,000,000	*

* Figures adjusted to reflect reduction from 1,250,000 to 1,000,000 G.S.F.

Phase I-B, with four academic buildings and two service buildings, provides the first 150,000 GSF for an anticipated 1,500 students. Phase II, in design development in mid 1972, provides an addition to the library and three new academic structures. Both phases are fast track construction to accommodate the scheduled opening and anticipated growth through 1973. The subsequent seven phases accommodate anticipated growth through 1988.

Growth Projections through 1988

Year	F.T.E. Students	Total Staff
1972	1462	378
1973	2311	524
1976	3834	725
1978	4950	936
1980	6013	1137
1982	6888	1302
1984	7769	1469
1986	8763	1657
1988	9882	1868

Revised Space Projections for 10,000 F.T.E. Students @ 100 GSF/FTE Student

Buildings		2-Story GAC**	Acres
Auditorium/ Museum*	50,000	25,000	.57
Gymnasium*	30,000	15,000	.34
Research Labs	47,200	23,600	.54
Classrooms, Office Labs	597,600	298,800	6.86
Library	231,200	115,600	2.65
Physical Plant	44,000	22,000	.50
	1,000,000	500,000	11.46

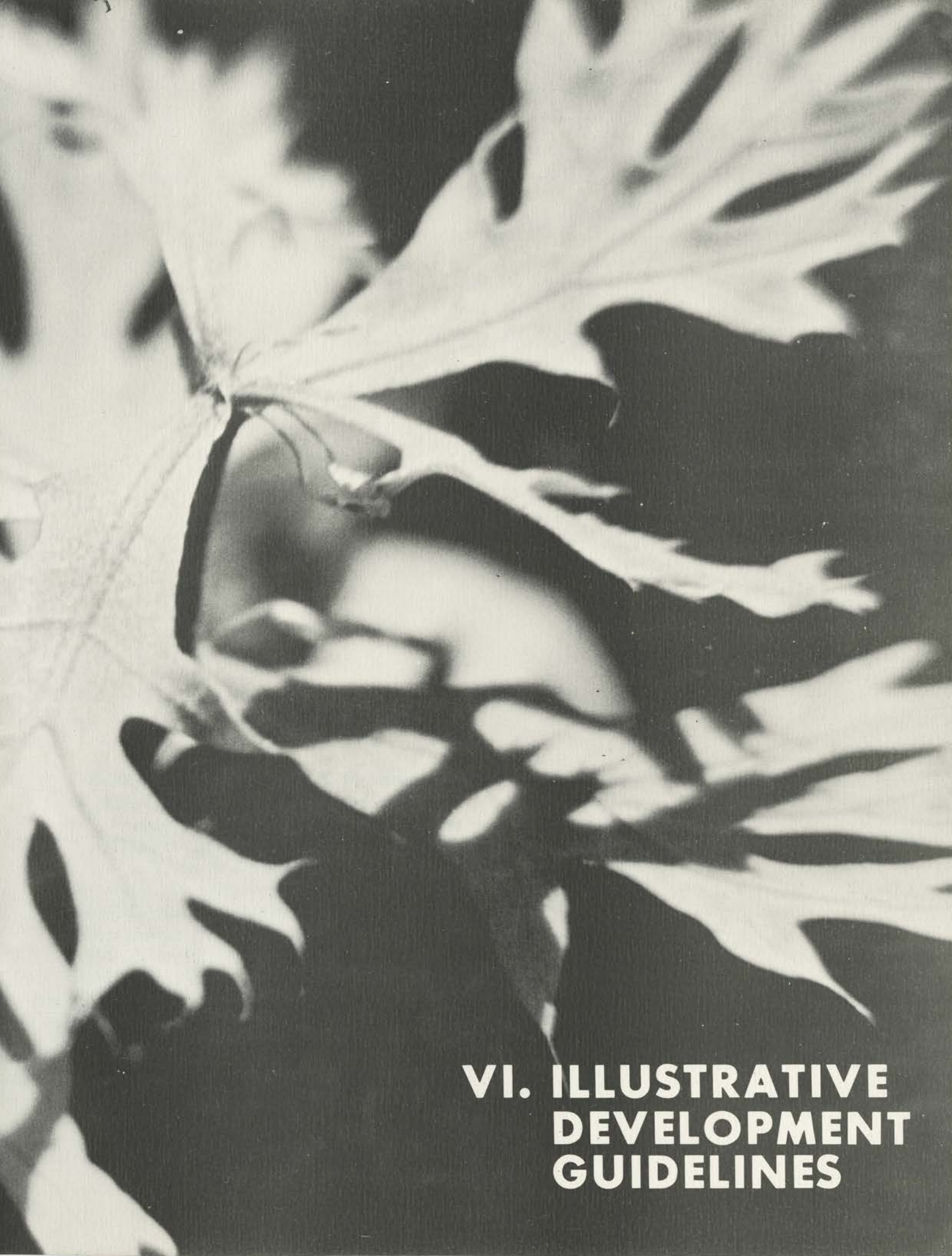
*Auditorium/Museum and Gymnasium unchanged; 20% Reduction taken from remaining categories.

**Ground Area Coverage

Parking

Based on 400 GSF per Automobile

	Number of Cars	GAC in Square Ft.	Acres
Students			
.5 x FTE Students	5,000	2,000,000	45.91
Others (Faculty-Staff-Visitors)			
1X Total Staff	1,868	747,220	17.13
	6,868	2,747,220	63.04



VI. ILLUSTRATIVE DEVELOPMENT GUIDELINES

The framework of the Master Plan is purposely flexible in order to meet the changing needs of the University and to allow for refinements during later development phases. Guidelines to preserve the intent of the Master Plan throughout the building program will determine the overall campus character. The establishment of a distinct character within the campus must consider the various site design elements, both separately and collectively, in order to achieve a coherent site expression. Illustrative development guidelines are multipurpose aids for the realization of planning concepts through the detailed site design work, coordinating each improvement or addition with the total campus plan. Considerations regarding pedestrian, automobile, and bicycle circulation, as well as the sequence of arrival and departure, are encluded in the illustrative guidelines.

PHASING

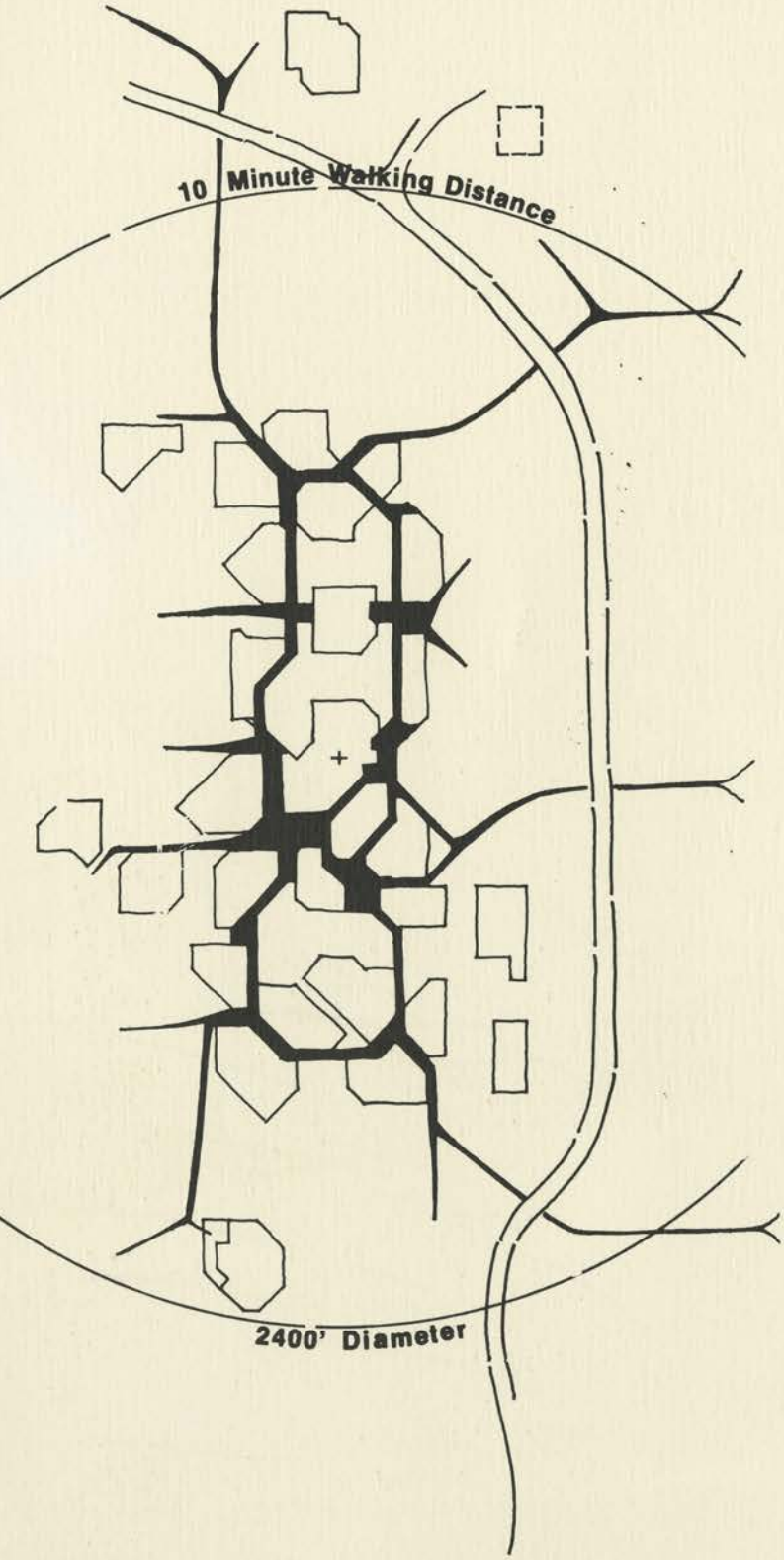
The village street assumes its initial form with completion of the second phase buildings. This form grows with each phase and develops the functional and visual connection between enclosed, academic space and exterior open space. Visual linkage results in a strong expression of the design concept regardless of the phasing sequence. As the village street expands, review of the concept and its application is required in order to achieve further refinements.

TRANSITION

The academic core of the University is a highly ordered, architectural expression. Since it is situated in a natural environment, the transition between the two areas is of concern if the Universite is to have a coherent image. This transition is translated into the design of each element, such as planting, paving and lighting details.

DESIGN CONSIDERATIONS

The design treatment of specific elements within the village street reflects the unique function of this campus component. Design to accommodate multi-uses is consistent with the character desired in this campus zone. Walls, serving as benches and bicycle racks, also provide mounting standards for light fixtures, drinking fountains and sculptural definition of space. Architectural screens, necessary for transformers and utility meters, also incorporate seat walls and information displays. Surface drainage within the village street utilizes various water control elements as design features. Surface gutters, combined with holding basins, serve a functional purpose in wet weather and a design purpose in dry periods. Splash blocks and splash pools at grade changes in drainageways heighten the dramatic possibilities of a surface system that controls large amounts of water. Thus a reduced scale water course, incorporating the visual delight and interest of a natural waterway, replaces the higher cost, single-purpose, underground system.



ARCHITECTURAL MASSING AND OPEN SPACE

The campus buildings reflect the horizontality of the site profile in their low heights and articulation of facade elements. The average building height of two stories does not exceed the height of existing tree cover and the 50/50 ratio of enclosed space to open space in total ground area coverage is achieved. However, buildings occurring in transition areas of the site, such as the auditorium/museum, gymnasium, and maintenance buildings, are of heights suitable to their intended use. Moreover, considerably less than a 50% ground coverage by enclosed space is desirable in these areas.

Overall aspects of architectural massing respond to criteria indicated in the initial building program. Building massing and mix of enclosed space to open space varies with building functions. The buildings are of an institutional scale in terms of gross square footage but are juxtaposed and detailed to create spaces receptive to a pedestrian scale. Open spaces vary in scale and orientation relative to the buildings served. Different building functions warrant specific treatment of indoor/outdoor spaces, ranging from the total interrelationship of interior and exterior food service areas to desirable laboratory spaces. Open spaces also reflect the adjacent activities which they serve, such as reading areas adjacent to the library and major gathering areas at walkway intersections.

PEDESTRIAN CIRCULATION

The standard utilized for the pedestrian circulation system is a 2400 foot diameter walking distance. A ten minute walking time is maximum for class change circulation and a fifteen minute walking distance is allowed for supporting use areas. A hierarchy of walkways is established for the pedestrian system in order to reinforce overall campus concepts.

Walkways within the campus core accommodate the largest volumes of traffic and are influenced by peak concentrations at class change periods. The treatment of the walks within this area, specifically along the Village Street, require a formalized architectural style relating to the function of mass movement of pedestrians.

Fringe areas of the campus core require walkways related to the transitional nature of this edge. Moderate volumes of traffic occur in this area where pedestrian traffic essentially stops, and new modes of transportation initiate. The physical configuration of the walkways reflect the transition in travel by changes in the site design character.

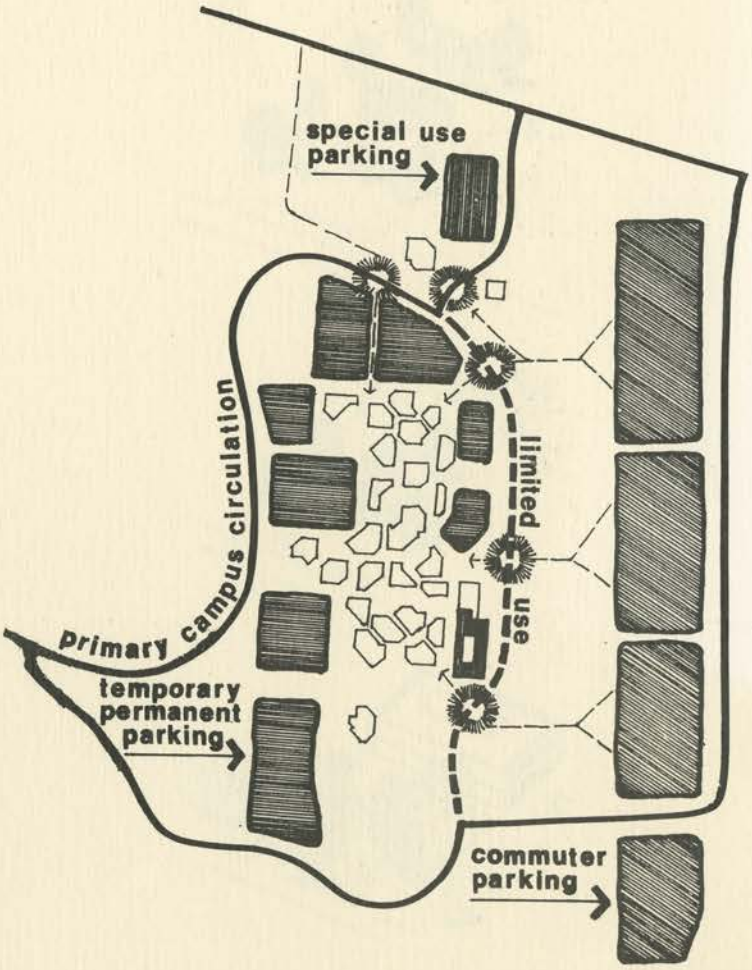
The passive areas of the campus core and the natural areas beyond the loop road require circulation paths that reflect the informal nature of activity which occurs there. Winding walks of more natural paving materials progress into unpaved nature trails as the circulation system extends outward from the intensive core. Crossings of the pedestrian system with the loop road are kept to a minimum and occur only where traffic volumes are lowest.

BICYCLE PATHS

The use of bicycles on different campuses varies and likewise the provisions for their use. Bicycles are anticipated on the University of North Florida campus primarily as a means of travel from nearby residences to the academic core. Paths for their use limit potential conflicts on pedestrian walks. Storage areas, both at entry points to the village street and at support buildings, require flexibility for changing trends in bicycle usage.

MOTORCYCLE CIRCULATION

Motorcycles utilize automobile circulation ways but require special storage areas. These facilities are to minimize conflicts between the two types of vehicles. Noise problems of such areas require consideration in determining compatible adjacent uses.

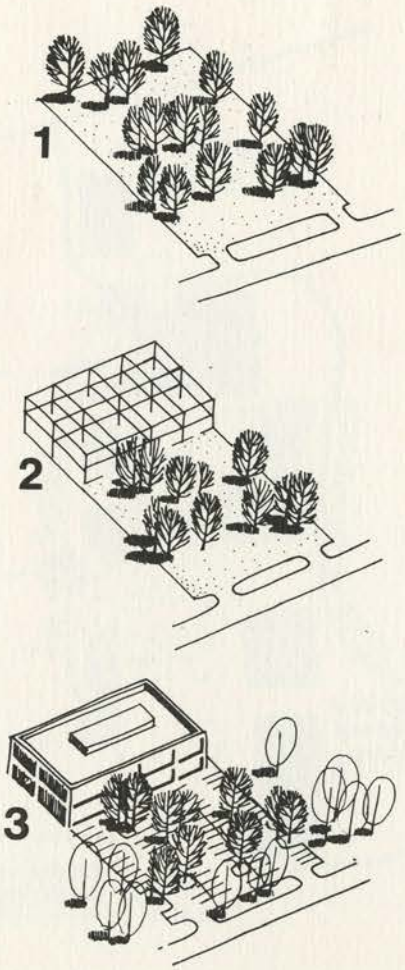


VEHICULAR CIRCULATION

The roadway system involves completing the alignment of the loop road in relation to natural and development forces of the site. The roadway circumvents the swamp areas by following a right-of-way compatible with the natural modulation of the land. This is accomplished through

the use of selective clearing of existing vegetation and moderate engineering criteria. The loop road and the entry drive respond to the desirable tangent for this type of intersection. The super-elevation utilized for large segments of the entry road permits connections only at specific points.

Additional entrances are designated off the proposed road north of the site. Access from the south to the parking areas on the east ridge is accomplished by a combination land fill and bridge proposed at a natural peninsular in Boggy Branch. Access from the north is accomplished along the north property line, which also accommodates access to the electrical switching station. The eastern portion of the campus loop is limited in use to reduce conflicts with pedestrians from the east ridge commuter lots. Acess to this ridge is from the north and south, continuing through circulation to the western edge of the ridges. This prevents conflicts with pedestrian collection points at bridge crossings.



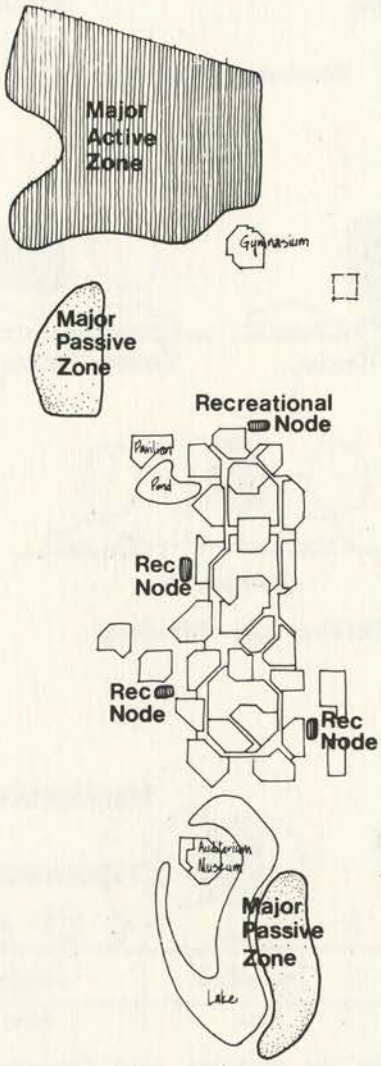
PARKING

For a totally commuter oriented university, parking is a major element. The parking lot, as a daily experience for student, faculty and staff, is an entrance to various campus areas. The sensitive treatment of natural grade, drainage and vegetation produces both a functional and aesthetic solution.

There are three types of parking lots in the U.N.F. development: those for special or specific uses; temporary/permanent lots as part of the initial development sequence; and the large commuter lots. The special use lots are oriented to particular functions, such as service group and gymnasium, and are relatively small in scale and permanent in character. The temporary/permanent lots, indicated to the west of the urban academic zone, accommodate three requirements in the development sequence. Initially, large lots are temporarily surfaced and informally organized around existing vegetation. This approach

provides inexpensive parking with flexibility to accommodate future needs. Sites, ultimately planned for buildings, afford convenient parking for initial phases. The intermediate step as a building construction site serves contractor staging and project parking. Student and faculty parking is simultaneously relocated during this intermediate step. The third phase is implemented after completion of the building construction with the installation of permanent paving and supplemental planting.

Up to 50% of total parking needs are accommodated on the primary development ridge. Of this amount, special use and temporary/permanent lots primarily serve the faculty and staff. Some student parking is provided, but the majority of overflow is accommodated on the east ridge across Boggy Branch. These east ridge facilities are to be phased according to needs starting with the center lot and pedestrian bridge.



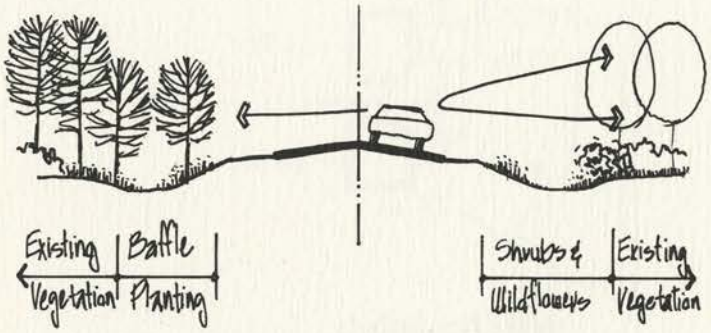
ATHLETIC FACILITIES

A system of passive and active recreational facilities is provided throughout the campus for health and physical education programs and competitive sports. The concentration of organized athletics occurs north of the urban campus outside of the loop drive. These facilities include the gymnasium, related parking and 20 acres of open playfields. Future additions, such as a golf course, are included in expansion to the west.

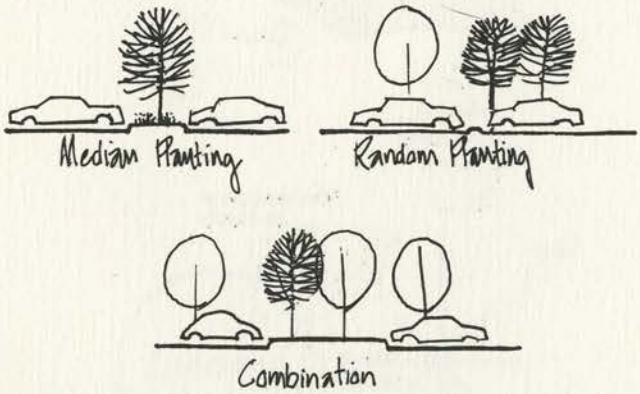
Two passive recreational zones are provided within the campus proper as transitional relief to the intense academic development. Consisting of natural undeveloped areas and informal

pedestrianways, these zones provide a place for quiet relaxation and study. The first zone, in the northwest corner of the loop road, is oriented around the cypress pond on land undesirable for construction. The larger zone to the southeast is on the western edge of the second cypress pond. This land also provides for building expansion beyond 1988 if needed.

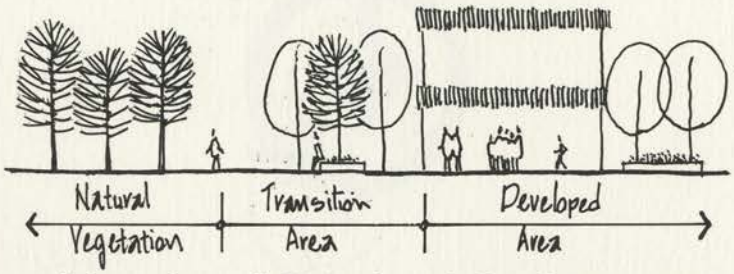
Active recreation areas are located adjacent to the academic zone with volleyball, tennis, swimming, basketball, and other similar court games convenient for use by students, faculty, and staff. These locations between peripheral buildings and parking lots, are also accessible from the village street. Additional facilities along the village street accommodate passive recreational needs as part of the multi-use development of open spaces.



Roadway Planting



Parking Lot Planting



Integration of Natural and Developed Areas

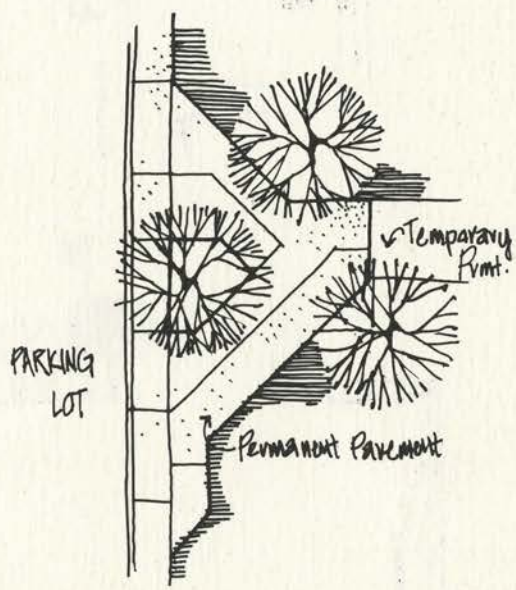
PLANTING

Planting is one of the most significant site design elements. It is used in association with all other elements and provides needed variety by growth and seasonal change. The five vegetation groups, as identified in the site analysis, represent the type of tree cover on the 1,000 acre site. These patterns are experienced throughout the development from entry points along roadways, in parking lots, as part of pedestrian walks and buildings. They represent the inherent character of the site and are within the natural areas and academic zone. The range of design character, from formality within the academic zone to informality in the transition areas, is reinforced with the planting design. Planting creates a human scale along pedestrianways, at building entrances and in sitting areas, contributing to a more intimate and comfortable atmosphere in the village street. Large canopy trees provide shade and reduce the visual impact of large parking areas. The use of plants for closures and openings along the loop right-of-way contributes to the driving experience by changing the motorist's vistas of ponds, lakes and buildings.

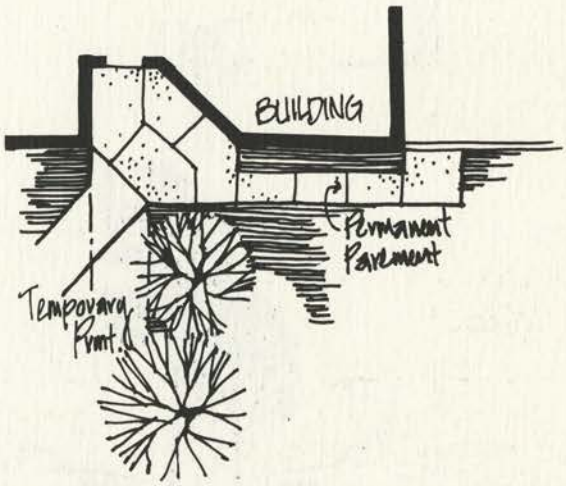
Maintenance considerations must be incorporated into subsequent planting designs. Since the academic zone generates higher maintenance, controlled materials must be implemented in this area of development. Treatment of connecting pathways and development edges are executed in a transitional manner with islands of natural material preserved along the undulating edge of the surrounding woods. With dimensions and forms conducive to mowing requirements, maintenance can be kept to a minimum. Through the use of native ground covers and wild flowers, parking lots and roadways will blend with the natural setting and require less care.

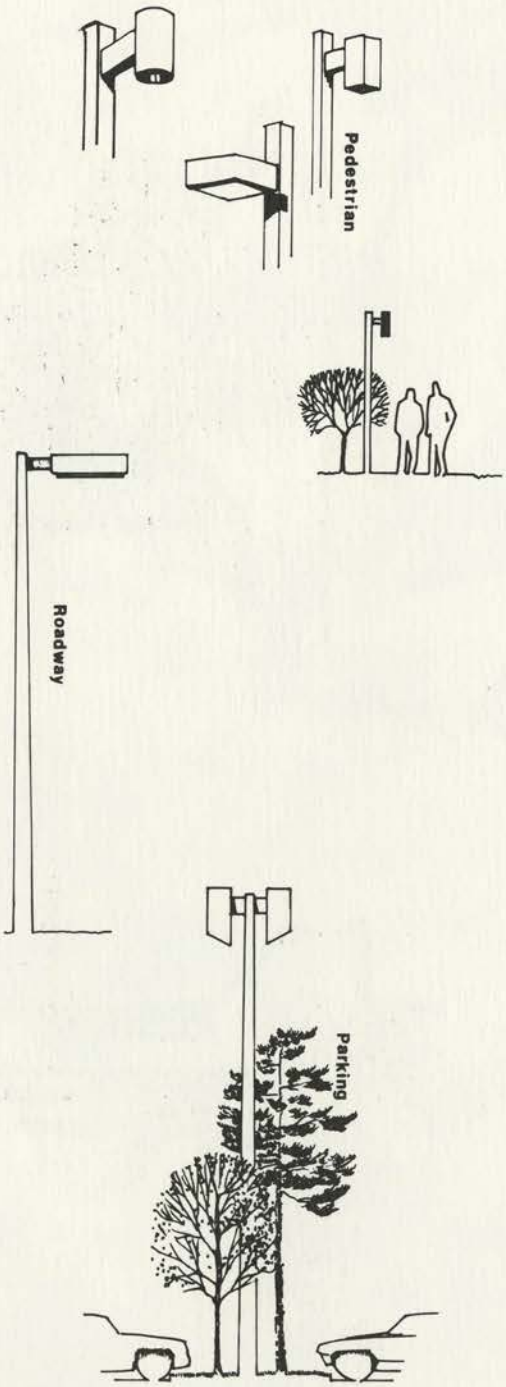
PAVING

Circulation and use areas need surface treatment that accommodates safe, convenient movement. Requiring various degrees of performance, durability, comfort and maintenance, each situation is designed as part of the overall system. Design considerations for the handicapped, as established by the American Standards Association Specifications, are incorporated into all circulation systems.



Walkways through the village street, open spaces, and connecting links provide smooth flow and are sized according to peak pedestrian loads. Provisions for other transportation needs, such as service, emergency and bicycles are also reflected in pavement design. Concrete walks dominate the permanent network accented with textures and colors of other materials. Temporary walkways, subject to change in alignment connect permanent walks at fixed points and have minimal grading and disturbance to their surroundings. Semi-permanent, flexible materials, such as asphalt, provide a less expensive, expendable solution for these needs. Pedestrian roadway crossings are properly illuminated and identified, emphasizing convenience and safety. The roadway is to be completed with bitiminous paving as in initial construction. Parking lots of a temporary nature are to be paved initially with a conventional lime rock base. In the refinement phase the application of bituminous is in keeping with the permanent lots. Paving of service areas, where independent of other uses, is to be durable and capable of accommodating heavy loads.





LIGHTING

With the anticipated percentage of evening classes illumination of the campus after dark is a primary concern. Of all the elements of campus design, lighting is often technically correct but gives little consideration to comfort or aesthetics. Function, aesthetics and comfort are to be provided in conjunction with properly engineered solutions at U.N.F. Adequate lighting levels can convey a feeling of security and be accommodated with inconspicuous lighting sources. Coordinated lighting types, luminaires, standards, and distribution systems contribute to overall campus unity and simplify upkeep and maintenance. Three general categories of campus lighting include roadway, parking, and pedestrian.

Roadway lighting is to be consistent at entrances and through the campus drives. Intersections, parking lot entrances and pedestrian crossings are emphasized to highlight the vehicular system, with the light in pools, as opposed to one continuous band. Thirty foot standards with color corrected, mercury vapor, luminaries are recommended.

Parking lots are to be illuminated with similar standards and luminaires. A high light source with multiple luminaires gives greater distribution and requires fewer units. Positioned in combination with canopy trees, the units highlight vegetation and present a less conspicuous source.

Pedestrian lighting is to be a part of the architectural solution whenever possible. Lighting units in the urban academic zone and along the pedestrian walks are to be of compatible scale and style. Standards ten to twelve feet high relate to the pedestrian scale of this zone.

GRAPHICS

As a supplement to the order and continuity of architecture and site development, a system of site graphics completes the unified comprehension of the total campus. Oriented to the vehicle, bicycle and pedestrian, a graphic system accomplishes the following design objectives:

The signs are easily read, both day and night.

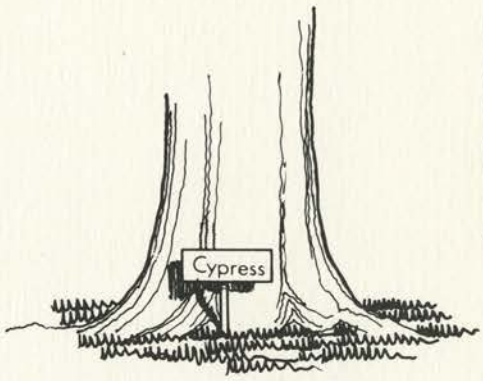
Graphics are kept to the minimum number required to accomplish their purpose.

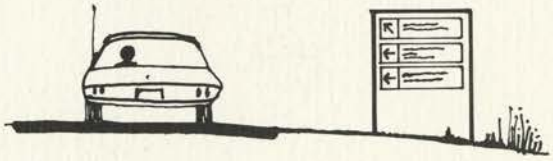
Materials of the signs are compatible with the architecture and site development.

Graphics consist of symbols and color codes with less emphasis on written words.

Both visitor and daily user needs are accommodated.

Permanent signs provide information, directions and regulations and are scaled and legible to the type and speed of travel they serve. Roadway signs, based on international symbols and twelve standard colors, contribute to the educational experience of the campus. Coordination of sign locations with site lighting reduces the need for supplemental lighting. A system of plant identification signs for botanical interest is included in the graphic system. Temporary signs for construction and special events are coordinated with the overall, site graphics system.



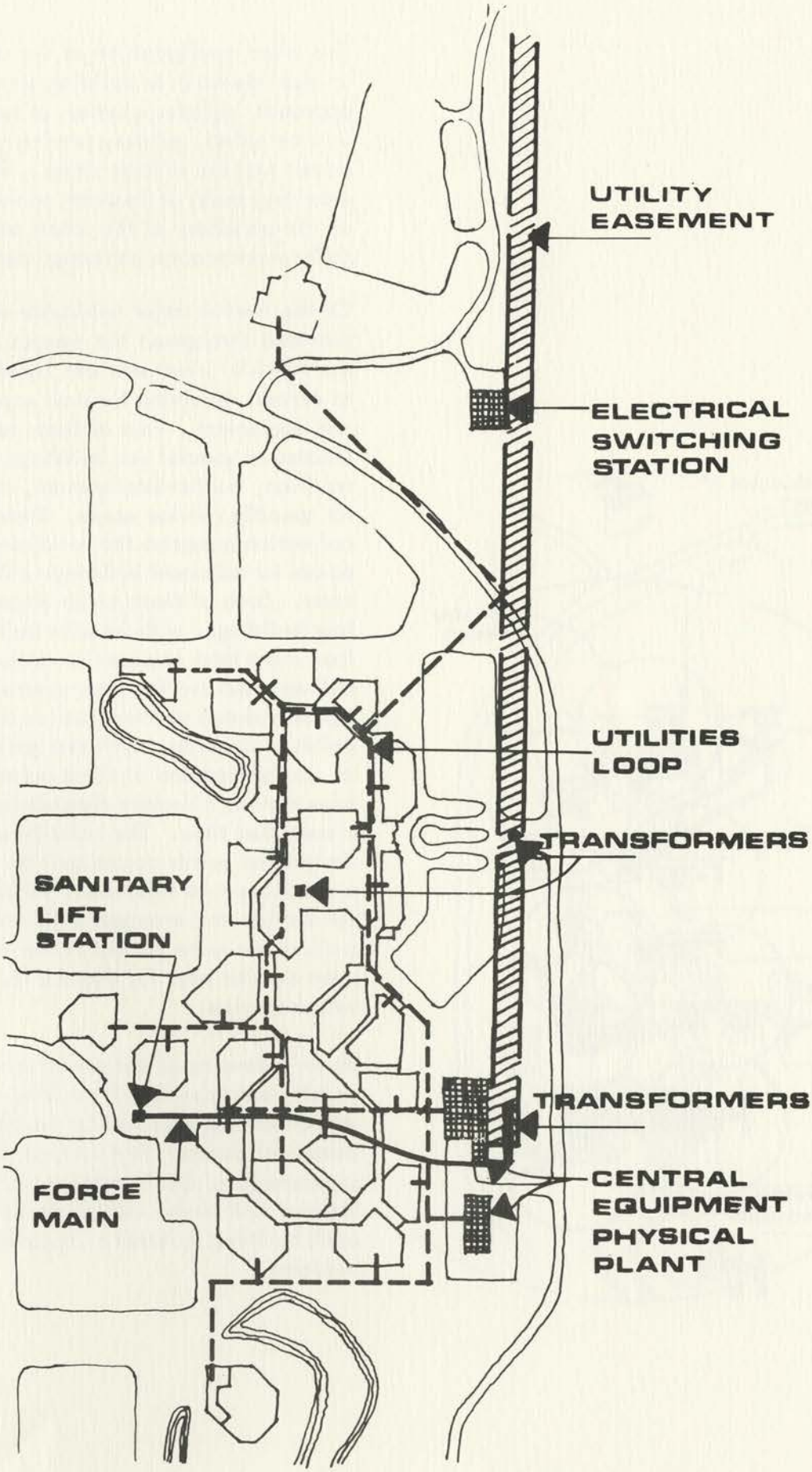


SITE DRAINAGE

In accordance with the natural drainage patterns of the site, Sawmill Slough and Boggy Branch continue to control the majority of off-site and on-site run-off. A series of four major lakes are to ultimately be constructed for impoundment of increased runoff in accordance with the recommended drainage improvements, as proposed by the Jacksonville Master Drainage Plan. The primary development ridge is to be drained by a combined surface and subsurface system which follows the natural slope of the land. Two small man-made ponds drain into existing cypress ponds, functioning similar to the four major impoundment lakes. Drainage water ultimately collects into the two natural drainage ways, Boggy Branch and Buckhead Branch.

SITE UTILITIES

All buildings are sited within the utility service zone established by the Utilities Master Plan Report for the University of North Florida and prepared by Reynolds, Smith and Hills, Architects-Engineers-Planners, Incorporated, July 26, 1971. Major utilities include electrical, telephone, sanitary, sewerage with lift station and force main, water, domestic hot water and the hot water/chilled water system. These systems are brought into the campus via the major north-south utility easement. From the central equipment building utilities are distributed throughout the site to service each building. The necessary easements to accommodate the ultimate utility systems network are contained within the open space of the urban academic zone.

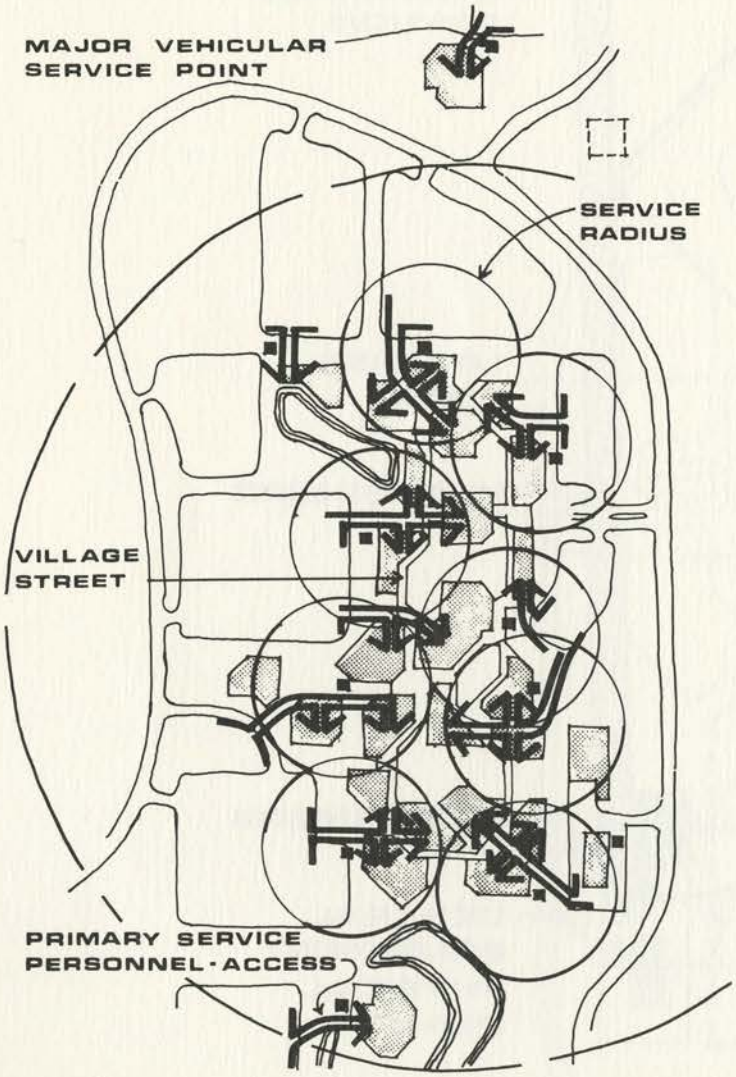

UTILITY
EASEMENT
ELECTRICAL
SWITCHING
STATION
UTILITIES
LOOP
TRANSFORMERS
SANITARY
LIFT
STATION
TRANSFORMERS
FORCE
MAIN
CENTRAL
EQUIPMENT
PHYSICAL
PLANT

BUILDING SERVICE

The urban configuration of the campus has a unique approach to building service. This approach includes a system of major vehicular service points, primary service-personnel access and the village street. Structures requiring major or frequent service are located on the periphery of the urban campus with daily maintenance performed during off hours.

Of the twelve major vehicular service points provided throughout the campus, one point at the physical plant services building, functions as central receiving for mail supplies, books and equipment. Four of these major points are located at special use buildings, the library, pavilion, auditorium/museum, and gymnasium for specific service needs. Distribution and collection comprise the remaining seven service points for adjacent buildings within the academic zone. Each of these points accommodate up to four buildings, with interior buildings accessible from more than one service radius. Food service delivery and service from control receiving are accommodated at these twelve major vehicular points. Likewise, trash and garbage pickup is accommodated at these points. Dumpster type trailers circulate through the campus during a specified time. The collection of refuse from designated points occurs outside of buildings and adjacent to sidewalks, which are sized for service and emergency vehicles. Filled trailers are to be pooled in the grounds department service area for disposal by packer truck refuse service.

As an extension of the major vehicular service points, entrance for all building service is provided from parking lots by the primary service-personnel access. This method of access accommodates each building and provides an interior link to the village street. Subsequently, each building is readily accessible to emergency vehicles.



Prior to exterior refuse disposal from major vehicular points, this network accommodates the collection of all trash and other custodial maintenance duties. Occurring between office areas or classrooms during the evening hours, custodial efforts are accomplished to avoid conflict with classroom occupancy. Minor distribution, collection and building services for all adjoining buildings are performed with rubber tired carts along the village street.

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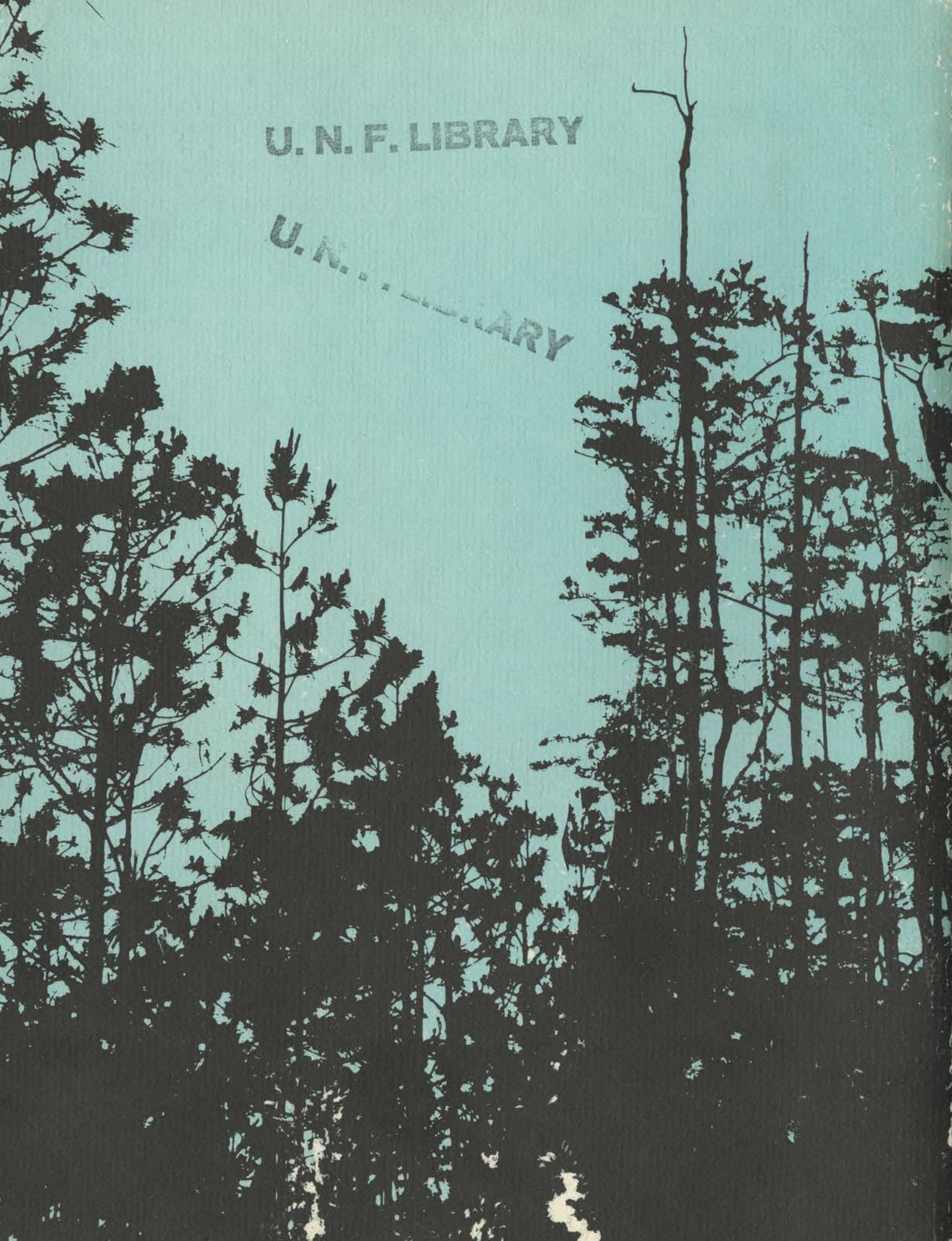

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