



T e c h n i c a l M e m o r a n d u m

Date July 7, 1998

Project University of Georgia Physical Master Plan

Subject Land and Building Use / (Section VI.A)

From Ayers / Saint / Gross

To University of Georgia

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1. PROPOSED LAND USE

Currently, the University does not have formally defined areas of land use on the Main Campus. North Campus has generally been associated with the Arts, Humanities, and campus administration while South Campus has been considered home for the Sciences. Land and building issues have been addressed accordingly, encouraging the juxtaposition of like disciplines in order to facilitate campus transit and ensure the efficient distribution of utilities and services.

In the course of the Plan development, five issues pertaining to land use have clearly not reached a final resolution.

1. Parking Policy
2. Veterinary Medicine
3. Greek Housing
4. Agricultural Lands
5. On Campus Housing

These issues are either in a state of rapid evolution or require a more detailed study than this plan will allow. There is the need for a more comprehensive parking study to be commissioned in conjunction with the development of new comprehensive parking policies and financing options (see section IV C Parking Space Projections).

A separate detailed study should be conducted for Veterinary Medicine's land and facilities needs. The study is required not only to define their extensive and immediate needs but also to facilitate consensus building within the School. The complex demands of the small and large animal hospitals combined with the academic and research facilities will require a professional study beyond the scope of the Physical Master Plan.

Greek housing is another complex land use issue; the scope of which goes beyond the Physical Master Plan. Comprehensive discussions of the future of Greek housing on campus have already begun and should continue in order to develop a strategy to address the problem of degenerating Greek facilities.

The College of Agriculture and Environmental Sciences (CAES) has many outstanding land-use issues that need to be addressed. These include the consolidation of the

University's agricultural lands, and the future growth and development of the three major extension campuses. The CAES has developed a Facilities and Land Use Task Force Report which includes facilities and land use policies and recommendations for the main campus animal related programs. This report is exemplary of what should be developed for the other CAES campuses and facilities. Similar to the College of Veterinary Medicine, the whole of the CAES is comprised of many complex elements including both academic and extension. This complex structure combined with the various locations of the facilities merits the need for a more comprehensive and detailed study.

The University housing department should develop an implementation and financing plan to carry out the University's goals of developing the capacity on campus to house all freshmen and sophomores, as shown on the proposed physical master plan.

2. BUILDING USE

Natural adjacencies of compatible programs and buildings have occurred in different areas, but this network has remained loose without the development of formally defined districts. The proposed plan recommends a continued effort to group buildings of compatible uses. The proposed plan reflects the unwritten goal that elements of like disciplines be located in close proximity to one another (see Figure VI.A 2). This would facilitate the distribution of utilities and service functions that like disciplines would share. This could also have a positive effect on campus transit and interdisciplinary academic, research, and service interactions.

Building sites have been shown on the proposed plan that fall into 3 categories (housing, parking and academic). It is strongly suggested that UGA develop policies that will continue to refine the process of assigning building uses to proposed buildings. Policies should be adopted that facilitate a detailed and comprehensive examination of sites to determine their best uses, taking into consideration the context of immediate surroundings as well as the whole campus.

It should be understood that for any University there would be a natural cycle of obsolescence of buildings. There will not only be a constant need for new facilities, but also for the restoration and substantial renovation of older buildings. The latter is a major concern for older institutions like UGA. While the University's replacement value of buildings is about 26% of Georgia's University System total, UGA maintains 64% of the buildings which are over 50 years or older in the entire system. With age factored into the formula, UGA's needs represent 33% of the system total as calculated by the Regents' formula.

Included in the appendix is the University of Georgia's FY 1997 Building Condition Evaluation, and a summary of the estimated building correction costs. Over time the continued patchwork and retrofitting of an old building for a new use may prove more costly than the construction of a new facility. The price tag for neglecting the renewal of campus infrastructure increases every year. Current policies associated with MRR funding do not allow for the process of renovating older buildings to work as efficiently as possible.

3. PROPOSED DEVELOPMENT DENSITY

The proposed plan incorporates a concentrated effort to provide the needed future facilities for approved and anticipated growth on contiguous campus land. The strategy of identifying future building sites on areas in close proximity to or between existing buildings is referred to in this plan as infill. This increased density will provide for the preservation of agricultural lands adjacent to campus and the efficient use of infrastructure and the campus transit system, while creating a better walking campus and a better sense of community. This concentration of new development on contiguous land will provide the opportunity for buildings to be used as the defining edges of open spaces. These open spaces will then contribute to the creation of a network of open spaces that provides the backbone of a clear comprehensive campus plan.

4. FUTURE DEVELOPMENT ZONES / RECOMMENDED LAND ACQUISITIONS

The highlighted areas in Figure VI A 4 are properties that are not currently owned by the University, but would be optimal sites if acquired for future growth, given their proximity to the academic core of campus. As these properties become available for acquisition, it is strongly recommended that the University seriously consider their purchase.



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Date 8/20/98

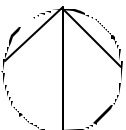
Legend

- Academic
- Residential Life
- Service / Outreach
- Student Life
- Parking

Proposed Building Use (Main Campus)

The University of Georgia Physical Master Plan

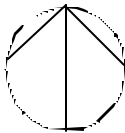
Figure VI A 2







NTS

7/15/98



Legend

-  Campus Property Line
-  Recommended Land Acquisitions

Recommended Land Acquisitions

**The University of Georgia
Physical Master Plan**

Figure VI A 4

Date September 9, 1998

Project University of Georgia Physical Master Plan

Subject VI.B Vehicular Circulation and Parking

From LRE Engineering, Inc.

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The purpose of this technical memorandum is to define the layout of the proposed vehicular circulation system and how it will work with the parking plan.

1a. CIRCULATION AND PARKING

1.1 Vehicular Circulation System

The University of Georgia is a mature campus with a well-defined street system. The combination of the campus' density and the rolling topography eliminates the potential for many new roadways to address circulation problems on campus. Furthermore, it is important that the circulation plan support the parking plan which, as stated in section IV.C, recommends that parking structures be moved to the periphery of the campus and interior campus streets be closed or have vehicular access on these streets limited. The Physical Master Plan addresses vehicular circulation and parking on a broad scale. A more in-depth detailed study should be completed to document the potential of future street closings/redesign.

The circulation plan for the University Georgia campus proposes to close several local streets while realigning existing roadways in order to open up developable area for buildings within the campus and move vehicles away from the campus core. The characteristics of the circulation system for the campus consists primarily of two lane roadways with turn lanes and traffic signals at major intersections. Important elements in the development of the vehicular system include the coordination of signals, pedestrian signals at well-defined crosswalks, sidewalks adjacent to the roadways, and bicycle lanes where appropriate.

Shown in figure VI.B.1a are the proposed local street closings and new roadway realignments. Also shown are proposed parking deck locations with the anticipated parking capacity for each deck. The major elements of the circulation plan include the following:

- The realignment of Lumpkin Street to intersect Baxter Street at Hull Street and then extended to East Broad Street to connect with Pulaski Street
- The closure of Lumpkin Street from Baldwin Street to just south of Baxter Street
- The closure of many local streets including D. W. Brooks Drive, Green Street and East Green Street

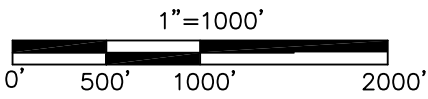
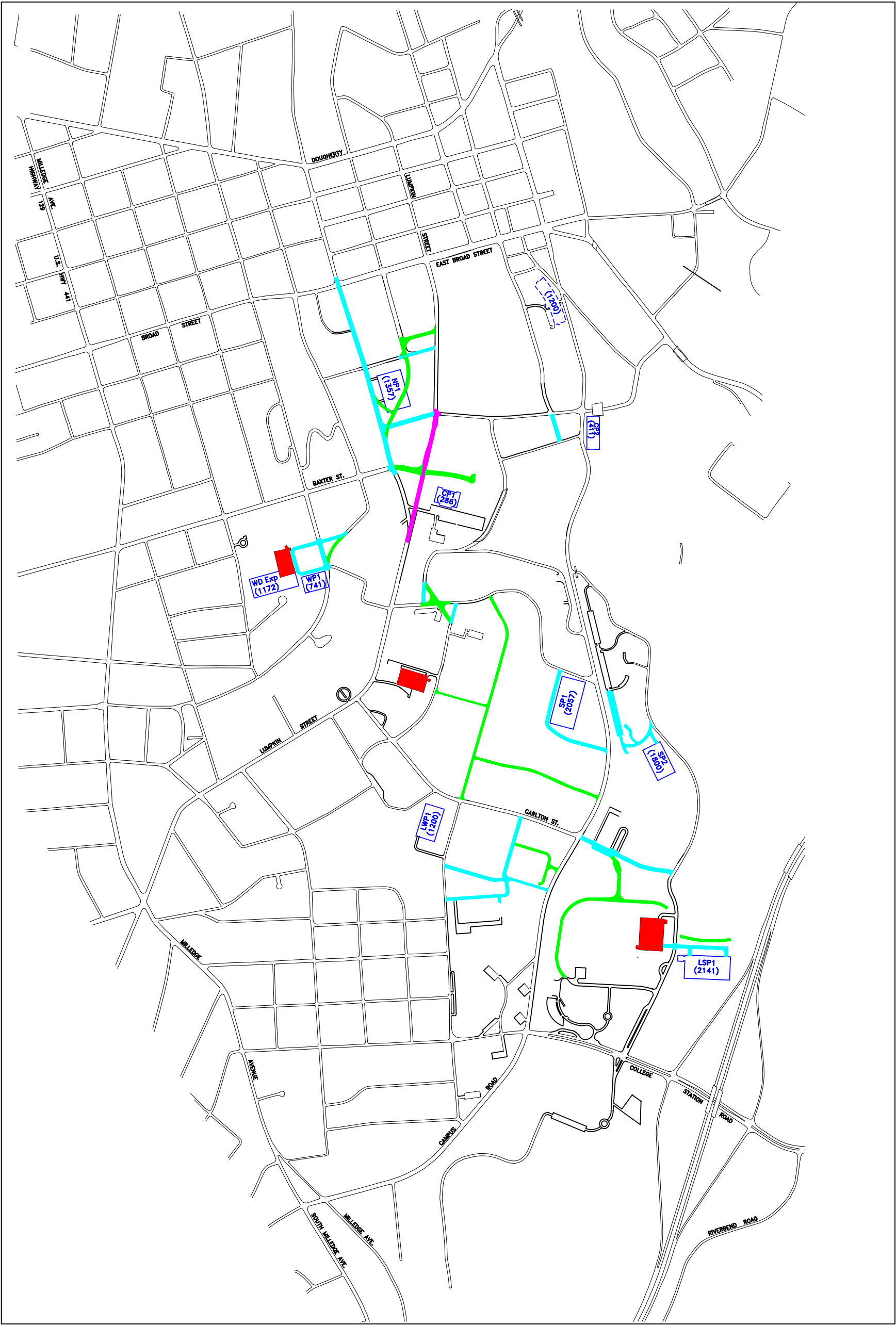
- The reconstruction of the Sanford Drive/Cedar Street intersection
- The redesign of some of the surface streets serving East Campus and the Ramsey Center

In order to close the local streets as identified in the list above and as shown in figure VI.B.1, it will be necessary to verify that service access can be maintained to campus facilities. Though most of the facilities will still be accessible from surface streets, it will be necessary that some of the greenways be “driveable” for specific service vehicles and special event parking.

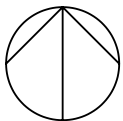
The most ambitious component of the vehicular circulation plan is the realignment of Lumpkin Street. It is projected that the intersection of Baxter and new Lumpkin Street will require signalization as will the intersection of the new street at East Broad Street. The new street is proposed to align with Pulaski Street.

1.2 Parking Location

There are nine proposed parking decks as shown in figure VI.B1a. Consistent with the parking deck location criteria, these decks are accessible from collector and arterial streets. The location of the decks serves two purposes from a transportation standpoint. First, the decks should be located at points to intercept traffic at major entrances and along high volume corridors in the campus. This will help to reduce the penetration of vehicles into the campus and reduce pedestrian/vehicular conflicts. Second, the decks should provide reasonable access, either by shuttle or walking, to major activity areas.



July 1998



Legend

- Minor Arterial to be closed
- Local Street to be closed
- Proposed Roadway
- Existing Parking Deck
- Deck Under Construction (Number of Spaces)
- Proposed Parking Deck (Number of Spaces)

Vehicular Circulation
And Parking

University of Georgia
Campus Master Plan

Figure VI.B.1a



T e c h n i c a l M e m o r a n d u m

Date July 1998

Project University of Georgia Physical Master Plan

Subject Proposed Bus and Bicycle Circulation (figure VI B 2b)

From Hughes, Good, O'Leary & Ryan

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The purpose of this technical memorandum is to discuss the proposed circulation routed for buses and bicycles on the University of Georgia campus.

The overall size of the Main Campus of the University of Georgia makes it necessary to promote modes of transportation, other than walking, to get people to their destinations in a timely manner. Currently, traffic congestion from automobiles and buses on the interior of the campus makes bicycling a less than desirable mode of transportation. Separation of buses and bicycles from each other as well as from pedestrians is a desirable condition for both safety and efficiency.

1. BUS ROUTES

1.1 Perimeter Bus Loop

By relocating the primary bus routes to the roads along the perimeter of the campus: Broad Street to the north, Jackson Street, East Campus Road and River Road to the east, College Station Road to the south, and Agriculture Drive, part of Sanford Drive and Lumpkin Street to the west, traffic congestion on the interior of the campus can be alleviated. Head times between buses would be shortened to compensate for less frequent stops and the overall number of different routes would be reduced. Part of the success of this proposal hinges on the development of a diverse network of pedestrian and bicycle routes, running primarily east – west, that will facilitate easy movement from bus stops to the interior of the campus.

1.2 Shuttle Buses and Handicap Transportation

For safety in the evenings and for special events, smaller shuttle buses that would take the rider closer to their final destination within the interior of the campus could be employed. Transportation of disabled riders would be handled in a similar fashion with either established routes or an “on-call” system.

2. BICYCLE CIRCULATION

2.1 Primary Bicycle Routes

Relocating the primary bus routes to the roads along the perimeter of the campus will help make the Main Campus of the University of Georgia much more hospitable to bicyclists. The goal of this plan is to create a continuous link from downtown Athens to Lake Herrick

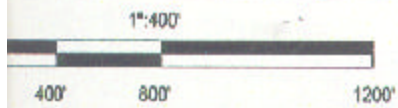
and to the existing regional multi-use trail system. The primary bicycle route will be a designated lane, separated from other modes of transportation and marked by a universally recognized symbol. The primary bicycle route will be located along a course that reduces conflict between automobiles and bikes by minimizing the number of crossings on streets that carry daily car traffic.

Along roads shared with motorized vehicles, a four foot wide lane will be marked on each side of the pavement where possible. Where the road is too narrow to accommodate two bike lanes, a single lane will be designated. If conditions allow, the single lane will be located on the side of the road that runs uphill with the flow of traffic.

For safety, major pedestrian routes will also be separated from bicycle traffic by a designated and well-marked lane. On the interior of the campus, primary routes will be along limited access streets where possible to make separation of vehicles, bicycles and pedestrians more practical.




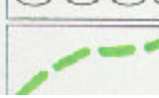
2.2 Secondary Bicycle Routes

Secondary bicycle routes will serve as east – west connectors from the periphery of the campus to the primary bicycle route. They will carry a lower volume of traffic, but where possible designated lanes will be provided.



1998

Legend

-  Bus Route
-  Primary Bicycle Route
-  Secondary Bicycle Route
-  Existing Regional Multi-use Trail

Proposed Bus and Bicycle Circulation

**University of Georgia
Physical Master Plan**

Figure VI B 2b





T e c h n i c a l M e m o r a n d u m

Date July 1998

Project University of Georgia Physical Master Plan

Subject Proposed Open Space System (figure VI C 1)

From Hughes, Good, O'Leary & Ryan

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The purpose of this technical memorandum is to discuss the proposed open space system on the University of Georgia campus.

The quadrangles on North Campus are characteristic of desirable open spaces because the scale of the structures surrounding them define the spaces without imposing on them. As a person walks through North Campus they are able to navigate by knowing where they are within a space rather than by knowing the address or name of a particular building.

Unfortunately, most of the existing open spaces on the University of Georgia campus do not share this character. In general, the other existing spaces are more disjointed and vary greatly in general character.

The goal of the Master Plan is to create a network of open spaces that become the way finding system for the campus. The pedestrian experience will encompass three major types of open spaces: naturalized space, streetscapes and quadrangles. These spaces will be woven together by the placement of future buildings and the renovation of existing streets and open spaces.

1. NATURALIZED SPACE

Naturalized spaces on the University of Georgia Campus are defined as areas dominated by informally arranged vegetation that connect the campus with its natural site elements. The primary naturalized spaces on the proposed plan are the Tanyard Creek area, including Lumpkin Street, and the area to the west of the Oconee River, including East Campus Road and the remnant woodlands on South Campus. These areas will be preserved and enhanced to further define character and role in the landscape. Other, smaller naturalized spaces may occur throughout the campus and the large naturalized area near Lake Herrick will remain intact.

2. STREETSCAPES

The University of Georgia campus has streets of many sizes and functions. In order to provide a safe and aesthetically desirable walking environment, each general type of street will have a character that suits its function and defines its role in the transportation hierarchy. The street types are defined as follows:

2.1 Publicly Accessible Streets at the Edge of Campus

High volume streets such as Lumpkin Street, Broad Street, Baxter Street, East Campus Road and College Station road are included in this category. These roads must accommodate automobiles and buses at a relatively high rate of speed as well as bicycles and pedestrians. Pedestrian safety at crossings is of the greatest importance on this type of road. Pedestrians should be directed to defined, signalized crosswalks at each intersection and discouraged from crossing streets at random.

2.2 Publicly Accessible Streets on the Interior of Campus

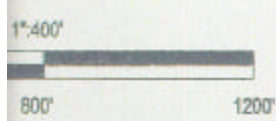
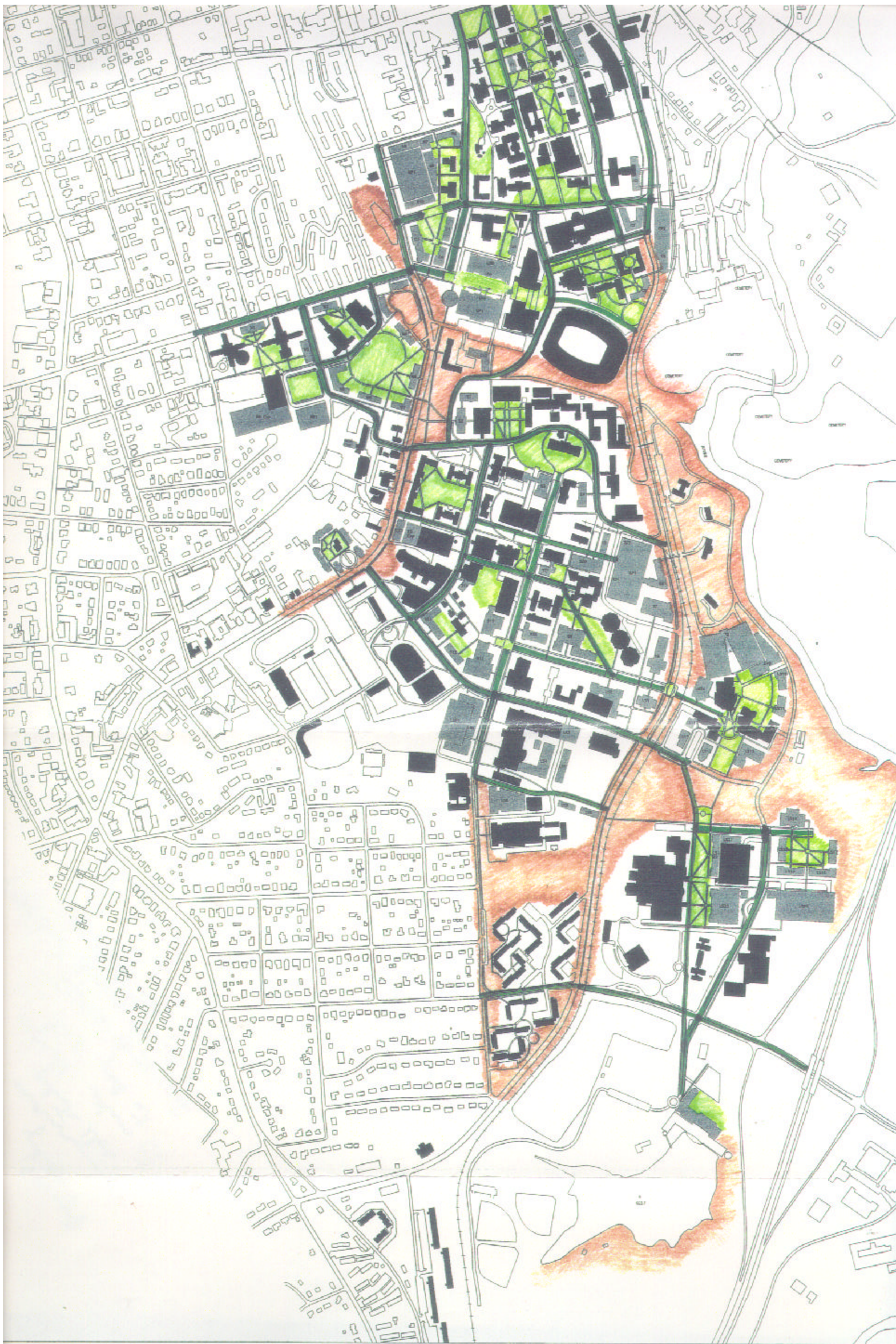
Examples of this type of street include Baldwin Street, portions of Sanford Drive and Carlton Street. The volume of automobile and bus traffic varies on these streets, but the number of pedestrians crossing these streets is high. Pedestrian safety is a major concern on these streets. Because of the total volume of pedestrians, especially at peak times, great numbers of people cross the street at places other than defined crosswalks. For this reason, traffic calming devices such as speed breakers and raised crosswalks are proposed for this type of street.

2.3 Limited Access Streets



D.W. Brooks Drive, “Old” Lumpkin Street, portions of Sanford Drive, Soule Street and Green Street are all proposed as limited access streets on the interior of the campus. These streets will be for use by bicycles and pedestrians only with motorized use limited to emergency and service vehicles. Where possible asphalt will be removed and replaced by concrete sidewalks (of a size suitable to handle vehicles if necessary) and green space.

3. QUADRANGLES

Quadrangles are defined green spaces that act as landmarks along circulation corridors (streetscapes). The edges of these spaces are primarily defined by buildings. As much as possible the character of these spaces will reflect the quadrangles on North Campus: a landscape of primarily grass and shade trees with multiple paved walkways. Quadrangles will be used as informal gathering and recreation areas and will be the notable spaces by which a pedestrian can navigate.



Legend

-  Naturalized Space
-  Streetscapes
- 

Proposed Open Space System

University of Georgia
Physical Master Plan





T e c h n i c a l M e m o r a n d u m

Date July 1998

Project University of Georgia Physical Master Plan

Subject Proposed Pedestrian Circulation (figure VI C 2)

From Hughes, Good, O'Leary & Ryan

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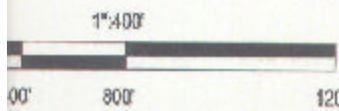
The purpose of this technical memorandum is to describe the proposed pedestrian circulation for the University of Georgia campus.

As described in the "Existing Conditions" portion of this document (figure III A 4.2), walking is one of the most desirable defining characteristics of the collegiate experience. Good walking campuses are characterized by compact form and a system of pathway connections that are clearly structured, richly textured, and pedestrian oriented.


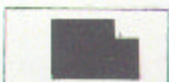




The north portion of the existing campus serves as a model for good pedestrian circulation. Rich texture is provided by the presence of multiple routes and many landmarks, both large and small, that punctuate the routes and provide intermediate destinations for the walker. Historically, the main campus of the University of Georgia has been perceived as several discrete campus districts without strong pedestrian links between them. The goal of the proposed pedestrian circulation system is to create a more unified walking campus by emulating the desirable qualities of north campus in the other campus districts.

Central to achieving this goal is the notion that automobile circulation and parking must be removed from the interior of the campus and limited to periphery of the campus. Removing the cars not only makes a safer place to walk, but it also frees space in the interior of the campus to create a rich pedestrian environment of many routes and intermediate destinations. Ultimately a person will be able to walk from the arch on north campus all the way to Lake Herrick on the extreme south campus, or to any destination in between, along an enjoyable, easily navigated pedestrian route that is relatively unimpeded by automobile and bus traffic.

Because of the hilly terrain on the University of Georgia campus handicap accessibility is a constant concern. Wherever possible accessible routes will be provided and compliance with all laws regarding accessibility coordinated with the office of accessibility.



Legend

- | | | | |
|---|-------------------|---|-------------------|
|  | Major Destination |  | Existing Building |
|  | Minor Destination |  | Proposed Building |
|  | Parking Area |  | Walking Distances |

Proposed Pedestrian Circulation - Plan

**University of Georgia
Physical Master Plan**



T e c h n i c a l M e m o r a n d u m

Date July 1998

Project University of Georgia Physical Master Plan

Subject Proposed Athletic and Recreational Facilities (figure VI D 1)

From Hughes, Good, O'Leary & Ryan

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The purpose of this technical memorandum is to discuss the proposed outdoor recreation opportunities proposed for the University of Georgia campus.

The University of Georgia's Athletics Department has long held an important presence on campus. The prominent position of Sanford Stadium on campus is a constant reminder of the powerful influence of athletics on the UGA Campus.

Overall, the on-campus recreational opportunities will remain as they are currently with space divided between intercollegiate and intramural athletics, natural recreation space, and informal and designated recreation space (see figure III A 6.1).

1. INTERCOLLEGIATE ATHLETICS

With the exception of Sanford Stadium, the majority of UGA's intercollegiate athletics facilities currently occupy a large area in the lower west portion of campus. This area seems well suited for this use and these facilities such as the Coliseum, Foley Field and the existing practice fields will remain intact. Pedestrian access for spectators at Sanford Stadium will be greatly enhanced by the development of a plaza area to the north of the stadium and reconfiguration of some the entrance gates.

The Athletic Association is anticipating some new development in the near future. Included in the appendices is a list of the UGA Athletic Association Capital Projects. It is strongly recommended that these efforts be coordinated with the implementation of the UGA Master Plan. Title Nine (concerning the equality of men and women's facilities) has spurred a lot of the latest physical growth in athletics because of the effort to maintain a balance between the women and men's facilities. Growth and expansion has generally reached a point of equilibrium, but should an imbalance occur, there would be the need for new facilities and again this development should be coordinated with the implementation of the UGA Master Plan.

2. INTRAMURAL ATHLETICS

This Comprehensive Master Plan shows an addition or expansion to the Ramsey Center because of the overflow of people in the current facility. It also shows that Legion Pool (underutilized in its current location) is relocated in the Lake Herrick area.

The proposed Alumni Center building will not diminish intramural fields near Lake Herrick on South Campus.

3. NATURAL RECREATION SPACE

Natural spaces such as Lake Herrick and the corridor adjacent to the Oconee River will be enhanced to provide recreational opportunities in the form of trails and to stabilize and prevent erosion and degradation.

4. INFORMAL RECREATION SPACE

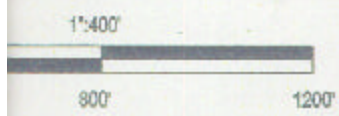
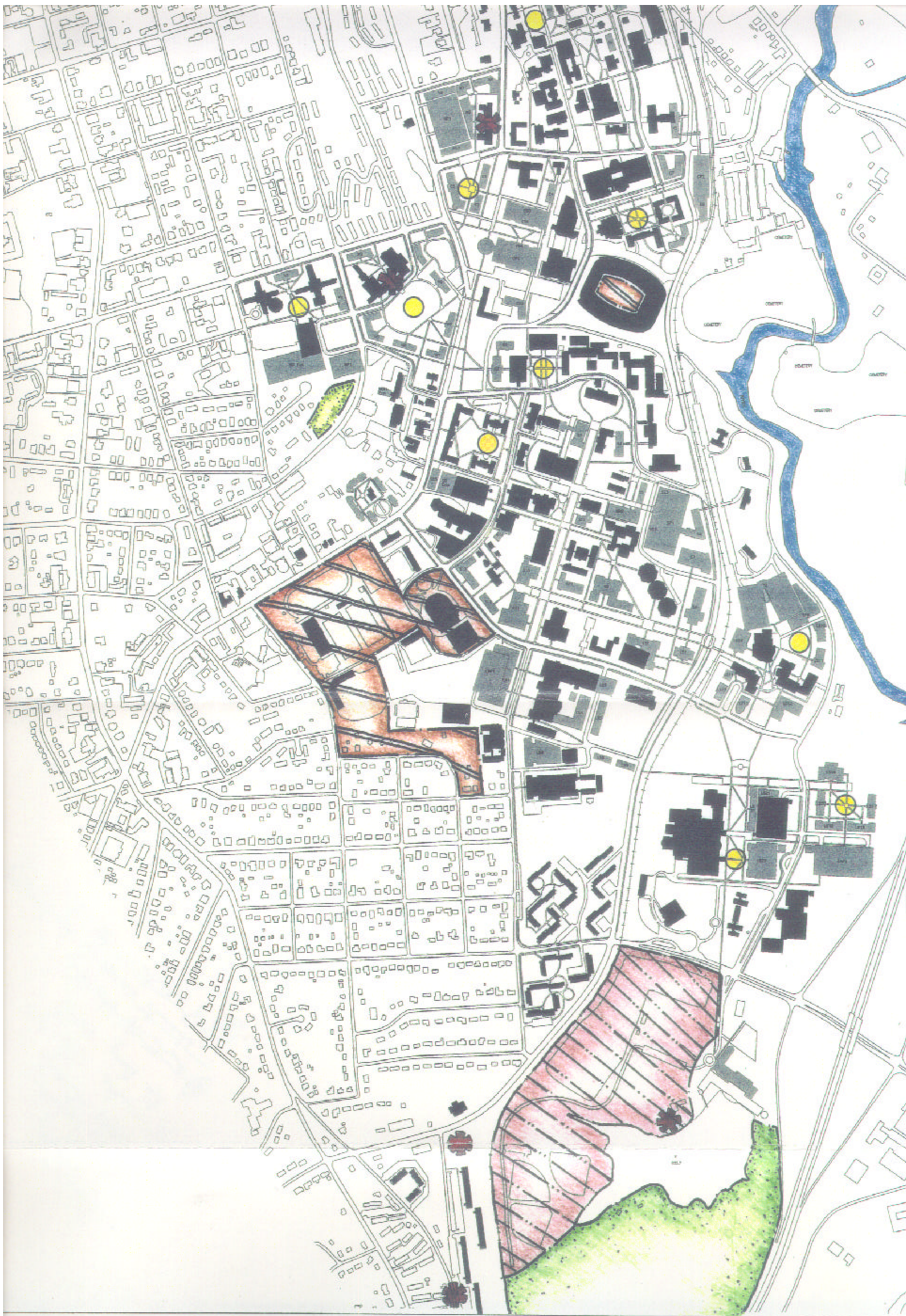
The proposed plan creates many more opportunities for informal recreation by emphasizing the creation of quadrangles, particularly at housing areas where students congregate.

While not created specifically for recreational purposes, these areas will be suitable for passive recreation and small active pastimes such as Frisbee and hacky-sack.

5. DESIGNATED RECREATION SPACE

Some designated recreation areas such as tennis, basketball, and volleyball courts, swimming pools or picnic areas will be removed to allow space for proposed buildings.

The outdoor swimming pool known as “Legion Pool” will be removed, but a new outdoor swimming facility is proposed near Lake Herrick.



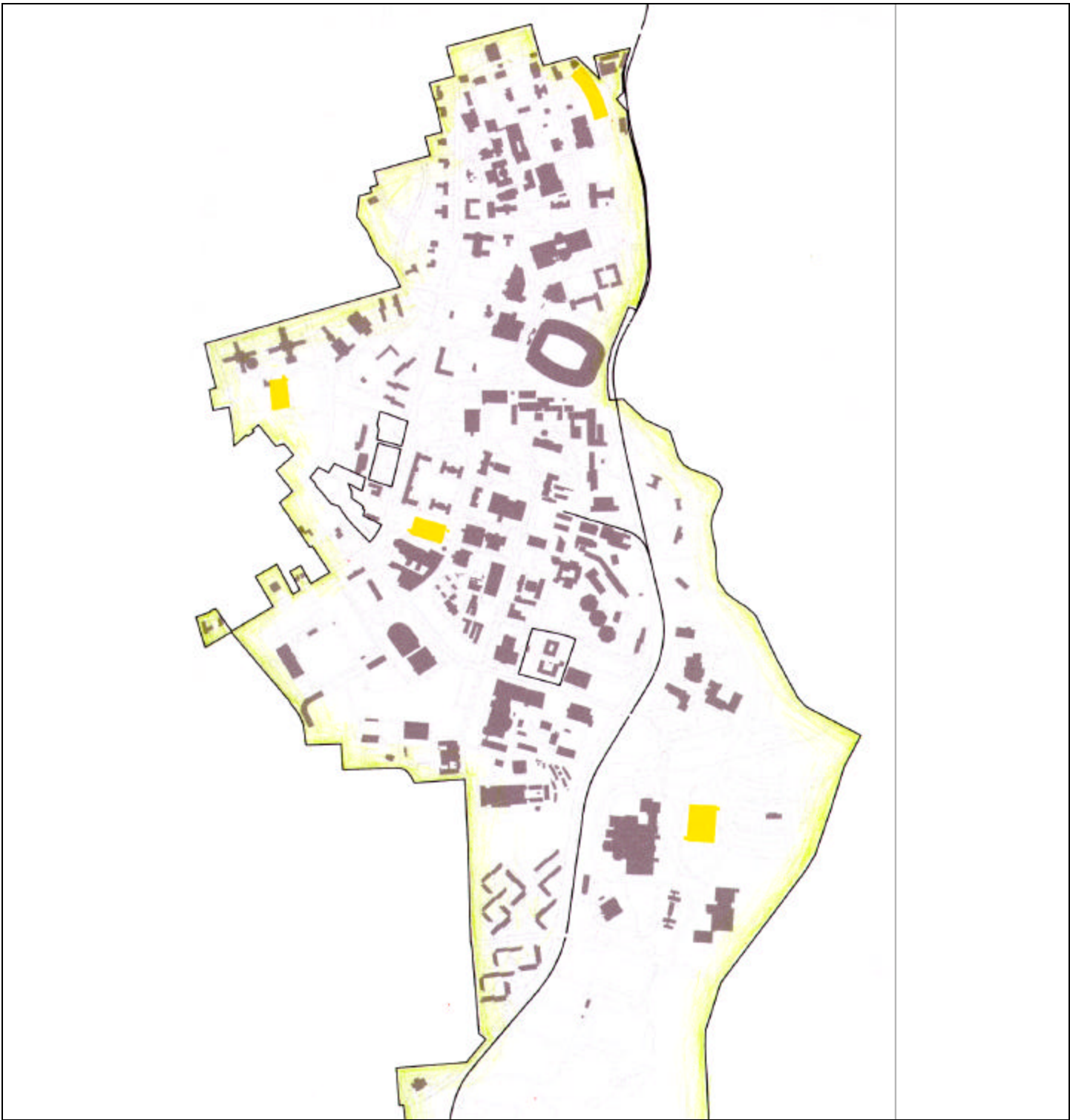
Legend

-  Intercollegiate Athletic Facility
-  Intramural Recreation Facility
-  Natural Recreation Space
-  Designated Recreation

**Proposed Athletic and
Recreational
Facilities**
**University of Georgia
Physical Master Plan**

Figure VI D 1





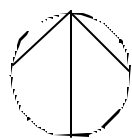
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November 1997

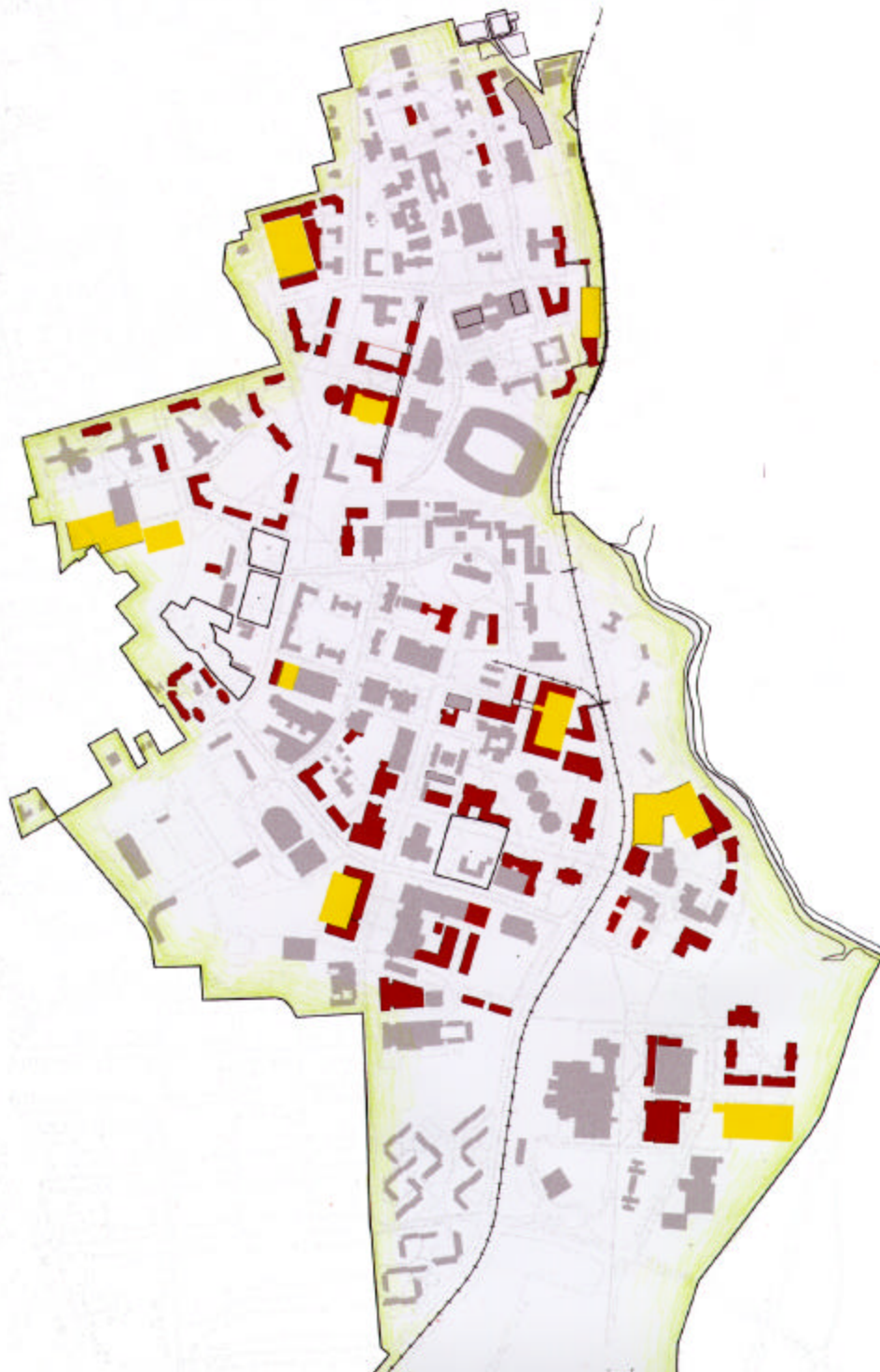
Existing buildings are
represented in grey and
existing parking decks are
represented in yellow.

Physical Master Plan
Existing / Proposed Diagrams
Existing Buildings

The University of Georgia
Physical Master Plan

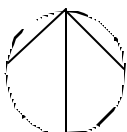
Figure VI Fa1





Not to Scale
November 1997

Proposed buildings are represented in red while existing buildings are represented in grey. Proposed parking decks are represented in yellow.



Physical Master Plan Existing / Proposed Diagrams Proposed Buildings

**The University of Georgia
Physical Master Plan**

Figure VI Fa 2

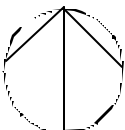


Not to Scale
November 1997

**Physical Master Plan
Existing / Proposed Diagrams**
Existing Figure Ground

**The University of Georgia
Physical Master Plan**

Figure VI Fa 3



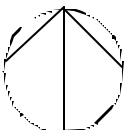


Not to Scale
November 1997

**Physical Master Plan
Existing / Proposed Diagrams
Proposed Figure Ground**

**The University of Georgia
Physical Master Plan**

Figure VI Fa 4





T e c h n i c a l M e m o r a n d u m

Date September 14, 1998

Project University of Georgia Physical Master Plan

Subject VI.E Campus Infrastructure

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The following is the preliminary expansion of the Table of Contents for this Physical Master Plan per the Template from the Board of Regents. This addresses the preliminary approach to campus infrastructure phase of this project.

TABLE OF CONTENTS

VI.E	Campus Infrastructure Projections
VI.Ea	Steam
VI.Eb	Chilled Water
VI.Ec	Water (fire protection, potable water)
VI.Ed	Sanitary Sewer
VI.Ef	Gas
VI.Eg	Stormwater
VI.Eh	Communications (voice, databand, videoband)

VI.E Campus Infrastructure Projections

a) Heating Utilities

The following graphic depicts the multiple Sub Central Utility Building (SCUB) zones and a rough approximation of locations of those buildings. It is assumed that these independent plants would generally be located at or in garage structures due to both access and noise impact. The final location of these plants could be within a new building or freestanding structures depending on timing of construction and the need.

Existing steam lines shown on the graphic would gradually be replaced with hot water lines paralleling the new chilled water distribution piping.

More detailed planning is required to find optimum plant siting and utility piping routes. In the case of housing and dining halls a life cycle cost study should be performed to determine if local gas boilers would be more cost effective, but allowing for higher cost of non-interruptible gas.

b) Chilled Water Utilities

As with the Heating Utilities graphic the projected chilled water SCUB zones are superimposed over existing chilled water distribution piping. The SCUB zones should logically follow the existing chilled water loops as much as possible to simplify the transition and to make use of as much existing distribution piping as possible.

Both chilled and hot water piping should be routed with careful attention to the planned open green spaces. Pipe crossing these areas should be sized for future needs or encased in a tunnel or conduit to minimize future disturbance to landscaped areas.

As with hot water distribution a more detailed study is required for optimum cooling/heating plant locations, piping routes and timing to satisfy both existing and future cooling and heating needs. The optimum design for these plants would be a modular design that would allow for expansion on central manifolds as needs dictate.

Also recommended for study are potential systems that would optimize energy cost and efficiency. This would include systems such as engine driven chillers which could provide chilled water during higher cost peak energy cost periods and provide hot water recovered from engine jacket and exhaust heat.

c) Potable Water

The Master Plan recommends the construction of several new buildings throughout the campus. Providing services to these newly constructed facilities will require connecting to the existing water systems. Additional fire hydrants and water valves are shown on the plans to provide the necessary fire protection for each building.

Services to all newly constructed buildings will be connected to the existing water system. The capacity of the existing system should be upgraded to handle the additional demands placed on the system due to the new building construction.

d) Sanitary Sewer

Most proposed buildings are located in areas where sanitary sewer lines are located. There are areas where the sanitary line will need to be extended in order to tie into existing sanitary lines. Additional manholes are shown on the plans every 300 foot to provide access to the lines for maintenance. Once the buildings are defined and the intended use is determined a more intensive evaluation will need to be conducted on the capacity of the line.

e) Gas

New gas loops and additional gas lines are added to existing gas lines to supply natural gas service to new buildings and accommodate the growth. If the intent of the University is to supply natural gas throughout the campus then this plan will accommodate their needs.

f) Electrical Infrastructure

An addition of a third transformer to the existing substation will be required. No locational or additional campus space requirements are needed with the third substation transformer. It is recommended that the additional ductbank locations be coordinated within the new program green area-landscaping plan. Given the new building growth projections, the impact of the program will create a need for a new electrical substation by the year 2007. It is estimated at this time that the most ideal location for a second substation seems to be adjacent to the Chicopee Complex.

It is recommended that a decentralized, area location approach be implemented for the generators, coordinated with the need for a similar Heating Ventilating and Air Conditioning strategy. This semi-centralized standby power capacity approach would be a recommended option to the University in lieu of providing emergency or standby power at the time each new facility is added, or providing one large standby generator plant.

The standby power capacity has been allocated by areas, in order to provide an alternative to building specific units as each new building is constructed.

The following areas marked in the illustration are suggested locations for the generation:

North Campus	Generating Plant No. 1
Central Campus	Generating Plant No. 2
South Campus	Generating Plant No. 3
Lower South & East Campus	Generating Plant No. 4

It is recommended that the location of these units be coordinated with the construction of new parking deck facilities such as to accommodate the space requirements of both within the same area. Should the option of a

large unit be considered, it would be feasible to locate at the Chicopee Complex, near the second electrical substation area.

g) Stormwater

The information provided for the stormwater infrastructure was very minimum. Due to insufficient data it was not possible to complete a map and offer additional information to the stormwater system.

h) Communications Infrastructure

Voice

There are five Campus Communications hubs with the AT&T Definity Generic 2, PBX switches. The current Master Plan expansion program will create a need for the addition of new switch sites as needed. The existing communications ductwork has the capability for additional growth. As switch sites are added, more supporting equipment will be added to the Ramsey Center Central facility.

Any new buildings should be designed to be provided with cabling that connects to the nearest switch site.

Data Distribution

Project "VENUS" (Virtual Electronic Network for University Services) intends to create a fiber optic network infrastructure to connect approximately 200 buildings over an Asynchronous Transfer Mode (ATM) backbone.

The total number of network attached devices is presently estimated to be approximately eight thousand. The project VENUS study estimated a system growth up to twelve thousand network devices.

The project mentioned above is currently being implemented.

The network topology described by the study proposed a matrix backbone with starred connections for clustered buildings. Each connection could be assumed to be a network switch. A total of twelve buildings were assigned to each switch node.

The VENUS Project has been designed for future growth by nature of its modular structure approach, the same pattern should be applied to the new expansion program such that the network topology and redundancy presently contemplated are maintained.

The following diagrams are currently only available in the Master Plan hard copy:

- Steam Utilities
- Chilled Water Utilities
- Potable Water Utilities
- Sanitary Utilities
- Natural Gas Utilities
- Electrical Utilities
- Stormwater Utilities
- Communications Utilities

However, the generating cad files are available on the **camplan.uga.edu** network at **\\owl\masterplan.**



T e c h n i c a l M e m o r a n d u m

Date 9/9/98

Project University of Georgia Physical Master Plan

Subject Comprehensive Plan (Section VI F)

From Ayers / Saint / Gross

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Fax 303/832-3380

The University of Georgia Comprehensive Plan is represented here in three ways. An illustrative to portray the overall essence of the plan, diagrams to highlight specific defining elements, and prescribed edges diagrams that clarify the relationship between the built environment and the natural.

1. ILLUSTRATIVE

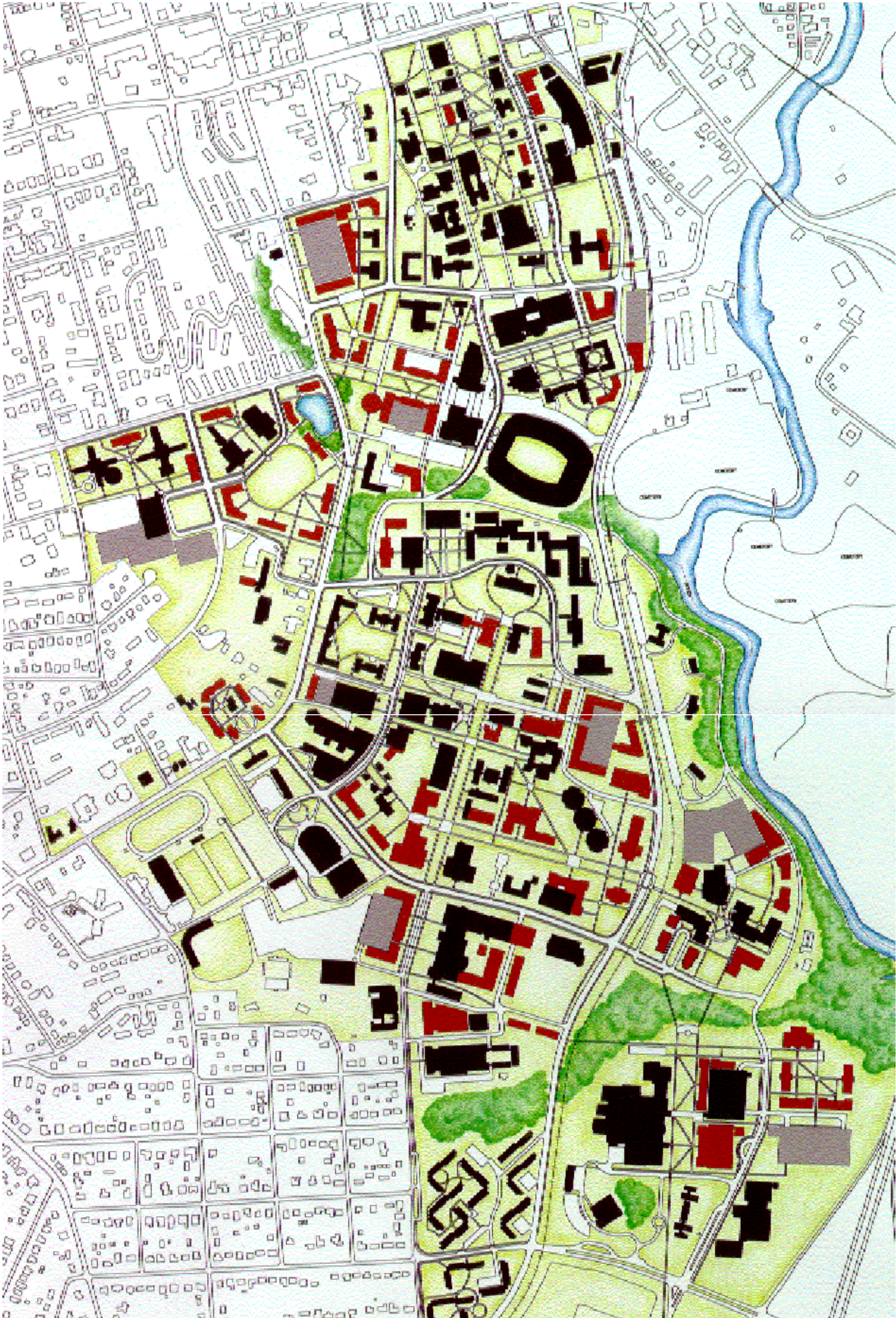
The illustrative of the Physical Master Plan (Figure VI F) serves as an inviting cover to a book that describes the process of combining the built environment with the natural to create a superior academic environment. This visual, without the clutter of detailed data and descriptions, clearly illustrates the heart of this Master Plan: the interconnectivity and enhancement of open space and the creation of order in the built environment.

2. DIAGRAMS

Figure VI Fa provides at a quick glance of the “before and after” of the built environment. Figure VI Fb illustrates dramatic changes in major elements of circulation on campus. Parking lots disappear while simpler more organized routes of circulation are developed.

3. PRESCRIBED EDGES

The dialog between buildings and the natural environments they occupy is the loudest voice heard by anyone experiencing a campus. The perceivable edges created by the alignment of building facades or landscape features create the limits of the outdoor environment, just as walls create the limits of a room. The more defined or perceivable the edge created, the more memorable and navigable the space becomes to the observer. In a campus or pedestrian oriented environment the relationship of one open space to another is just as important as the juxtaposition of buildings. Figures VI F 1a-f delineate the prescribed edges created by the location of existing and proposed buildings and the network of open spaces they define.



Not to Scale

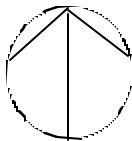
Legend

- Proposed Buildings
- Existing Buildings
- Proposed Decks

Comprehensive Plan

The University of Georgia
Physical Master Plan

Figure VI F





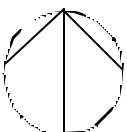
Not to Scale
November 1997

Black area represent existing
surface parking.
Red represents existing
parking decks.

**Physical Master Plan
Existing / Proposed Diagrams**
Existing Parking

**The University of Georgia
Physical Master Plan**

Figure VI Fb 1





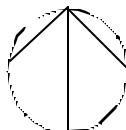
Not to Scale
November 1997

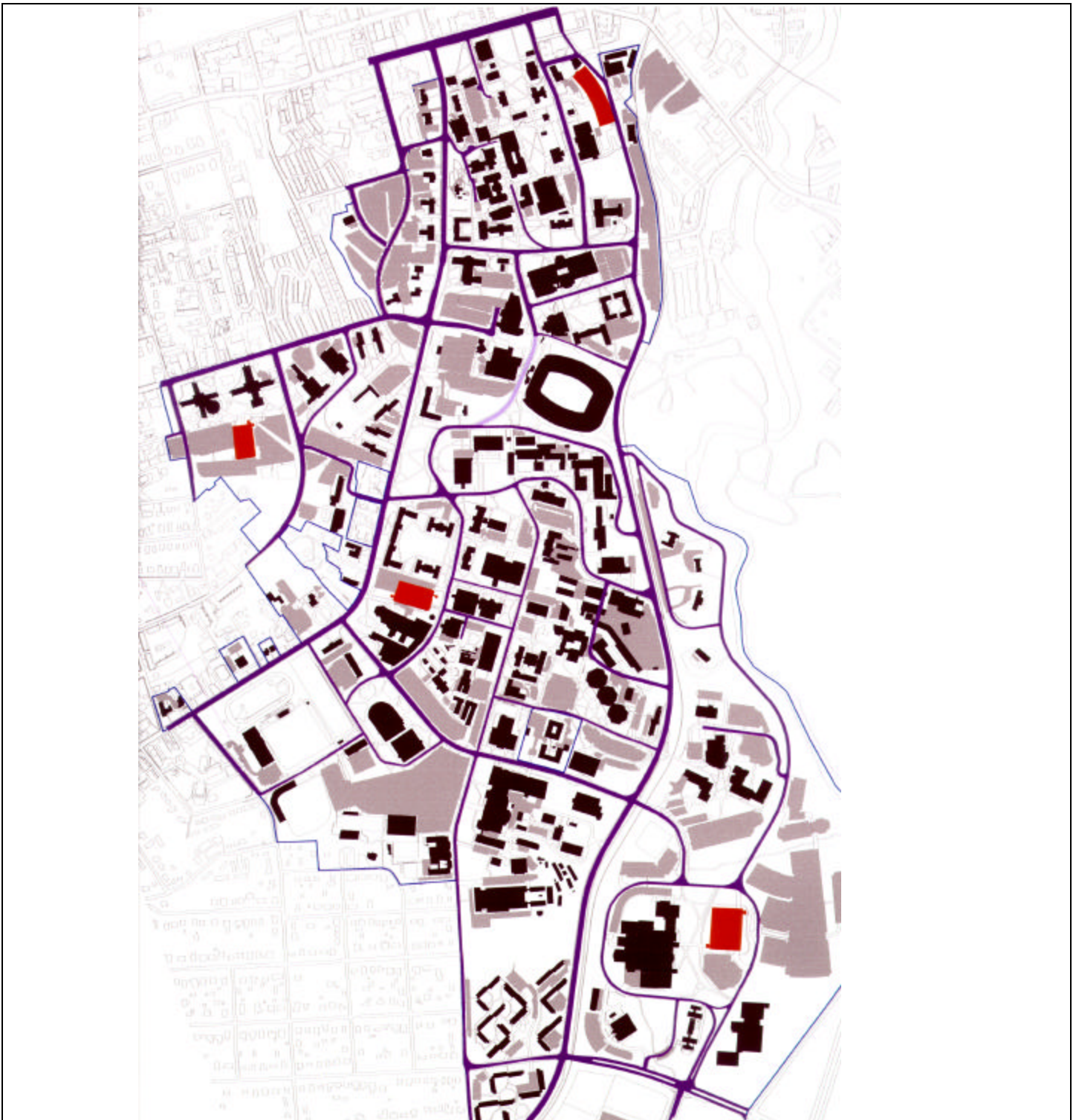
Proposed parking decks are
represented in red.
Surface parking is represented
in black.

**Physical Master Plan
Existing / Proposed Diagrams
Proposed Parking**

**The University of Georgia
Physical Master Plan**

Figure VI Fb 2





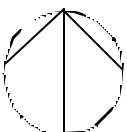
Not to Scale
November 1997

Purple lines represent existing roads. The width of the line represents the hierarchy of the most heavily traversed to the least traversed roads.

Physical Master Plan
Existing / Proposed Diagrams
Existing Traffic

The University of Georgia
Physical Master Plan

Figure VI Fb 3





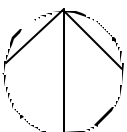
Not to Scale
November 1997

Purple lines represent proposed road network. The width of the line indicates the hierarchy of the most traveled to the least traveled.
Parking decks are represented in red.

Physical Master Plan
Existing / Proposed Diagrams
Proposed Traffic

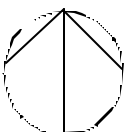
The University of Georgia
Physical Master Plan

Figure VI Fb 4




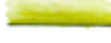





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9/2/98



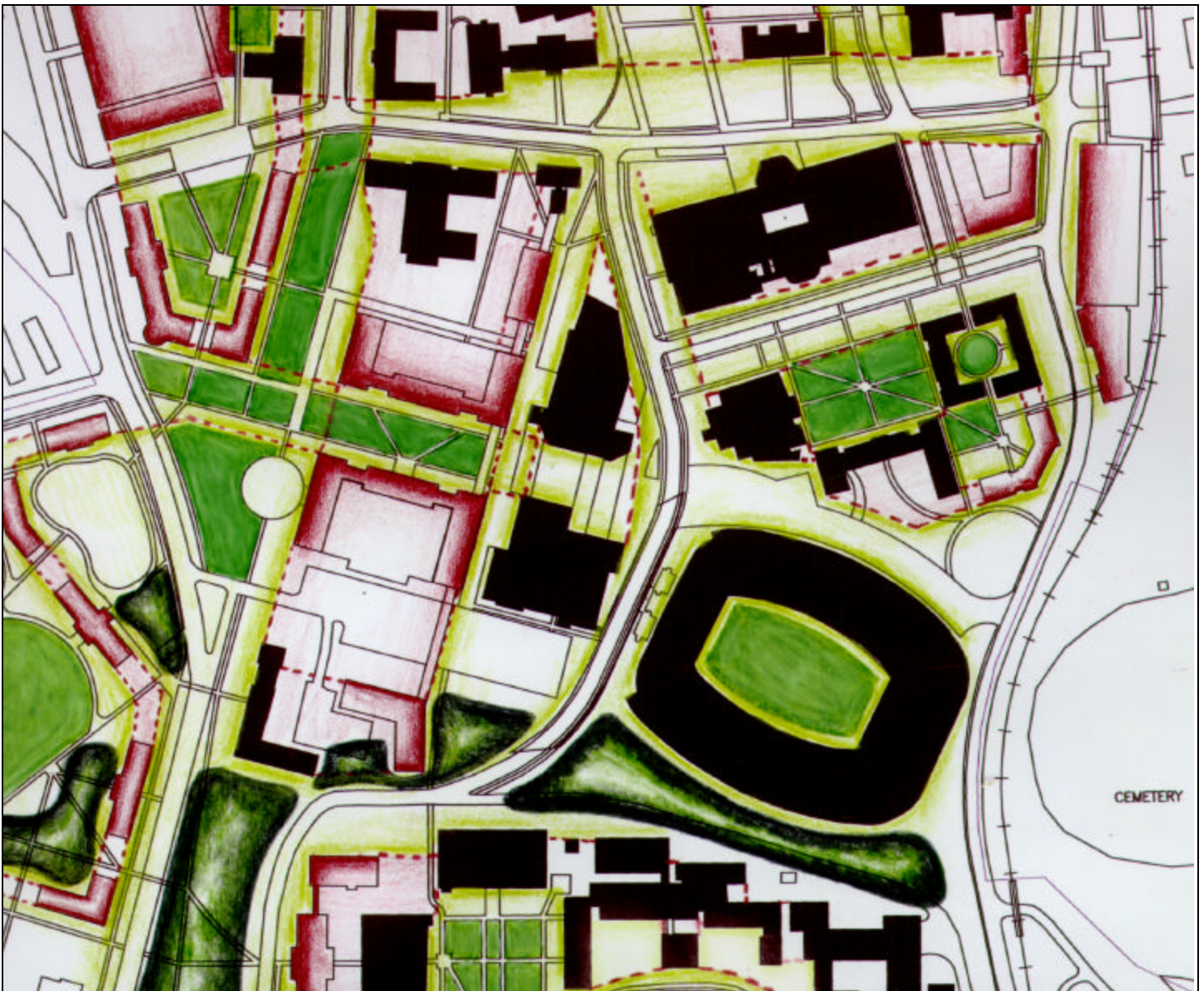
Legend

-  prescribed proposed building edge
-  geometric relationship guidelines
-  primary quadrangles
-  secondary informal open space
-  preserved remanant forest

Prescribed Edges North Campus






The University of Georgia Physical Master Plan

Figure VI F 1a



Not to Scale
9/2/98

Legend

-  prescribed proposed building edge
-  geometric relationship guidelines
-  primary quadrangles
-  secondary informal open space
-  preserved remanant forest

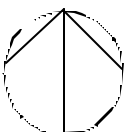
Prescribed Edges Central Campus

The University of Georgia Physical Master Plan






Figure VI F 1b



Not to Scale
9/2/98



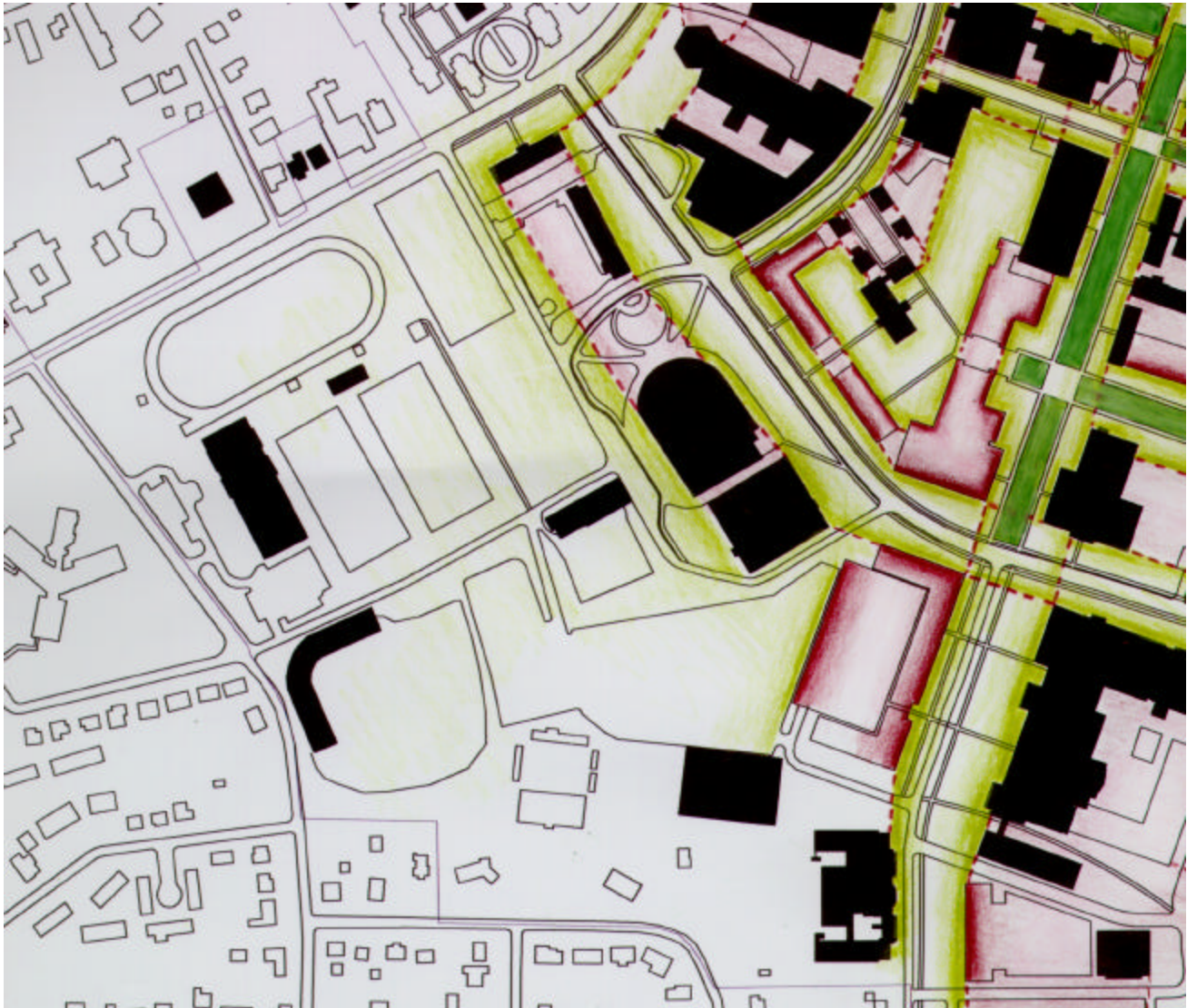
Legend

-  prescribed proposed building edge
-  geometric relationship guidelines
-  primary quadrangles
-  secondary informal open space
-  preserved remanant forest

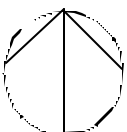
Prescribed Edges West Campus

The University of Georgia Physical Master Plan



Figure VI F 1c



Not to Scale
9/2/98



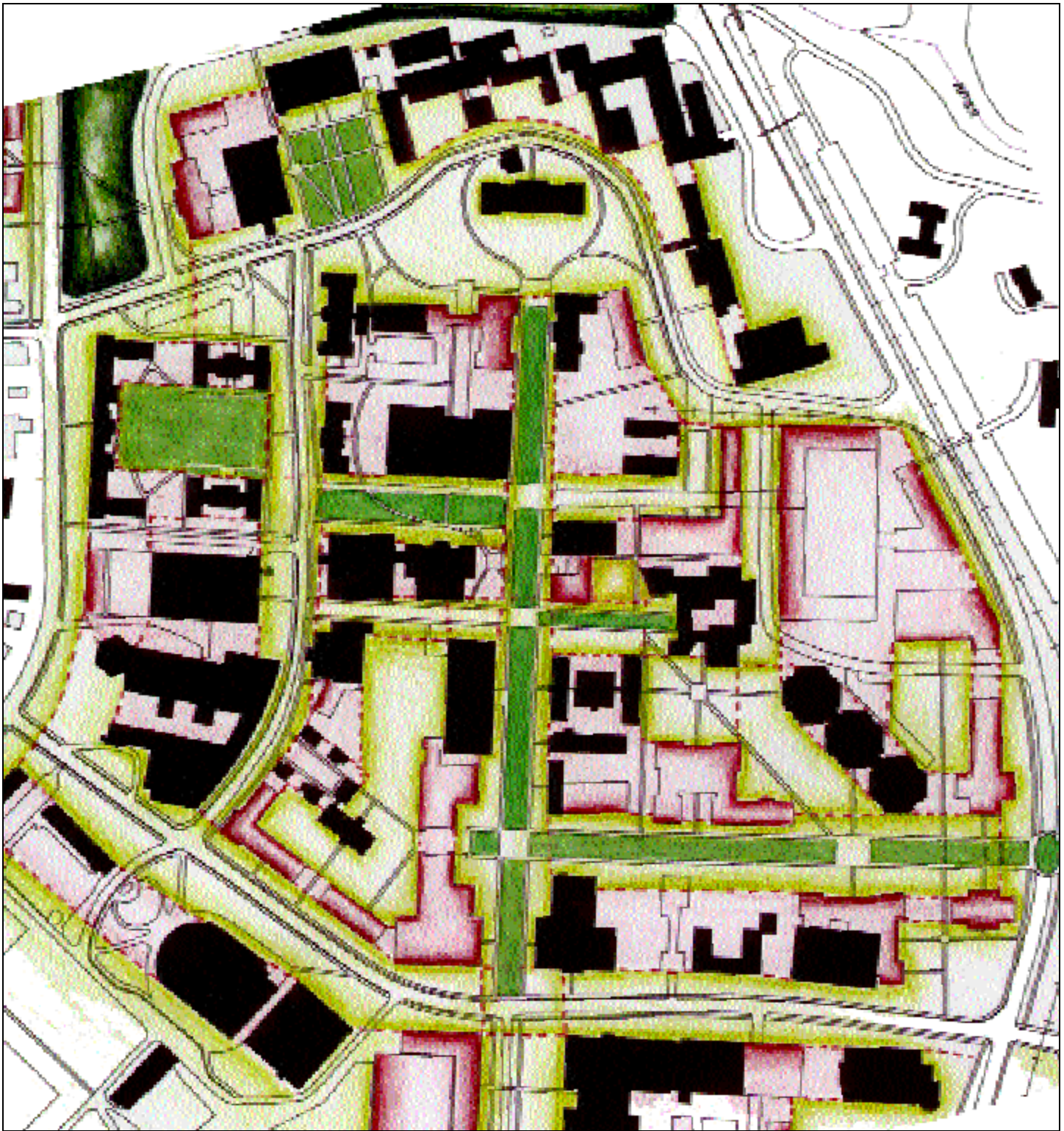
Legend

-  prescribed proposed building edge
-  geometric relationship guidelines
-  primary quadrangles
-  secondary informal open space
-  preserved remanant forest

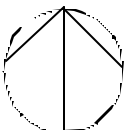
Prescribed Edges Lower West Campus

The University of Georgia Physical Master Plan






Figure VI F 1d



Not to Scale
9/2/98



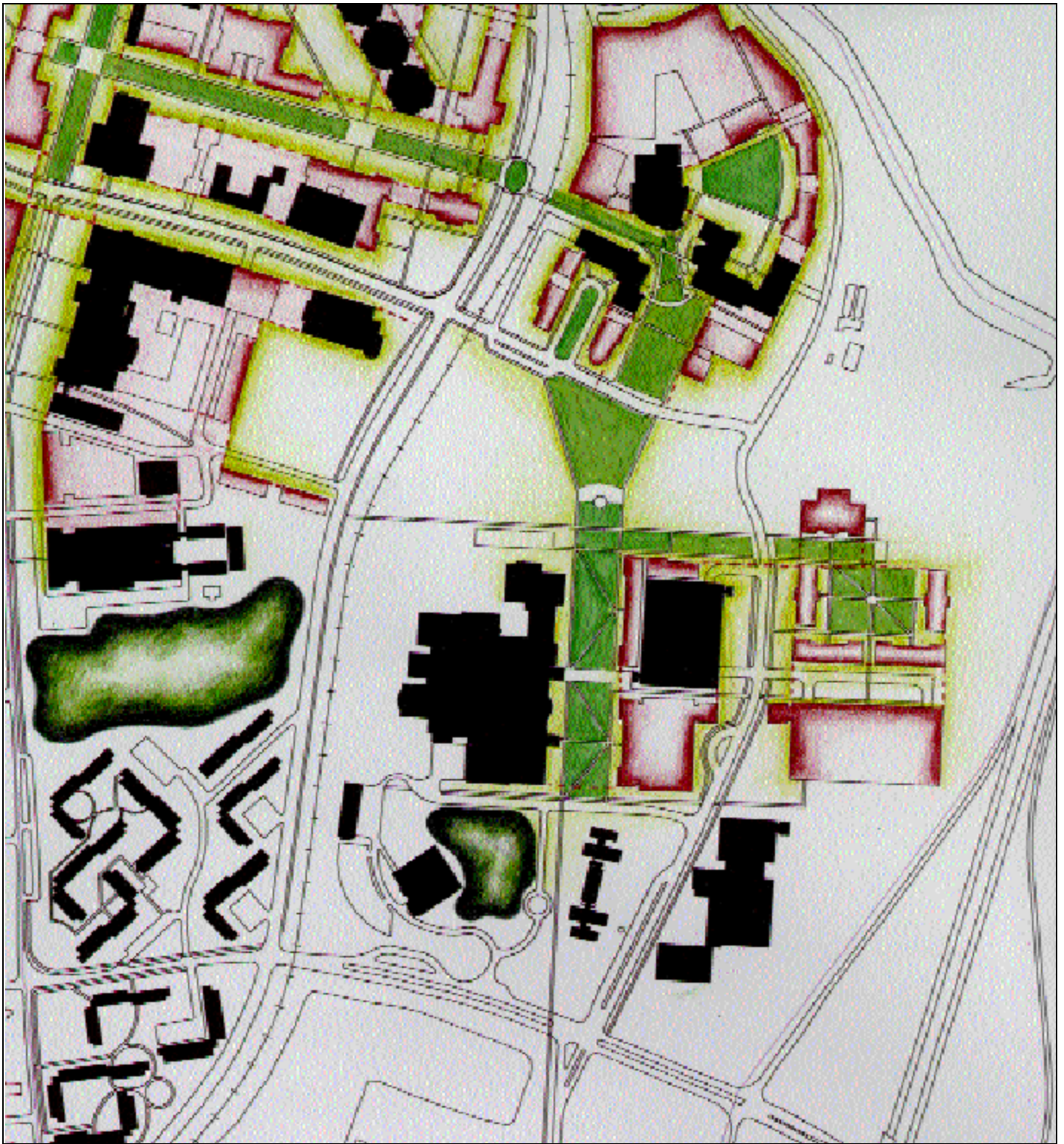
Legend

-  prescribed proposed building edge
-  geometric relationship guidelines
-  primary quadrangles
-  secondary informal open space
-  preserved remanant forest

Prescribed Edges South Campus

The University of Georgia Physical Master Plan

Figure VI F 1e



Not to Scale
9/2/98

Legend

- prescribed proposed building edge
- geometric relationship guidelines
- primary quadrangles
- secondary informal open space
- preserved remanant forest

Prescribed Edges Lower South and East Campus

The University of Georgia Physical Master Plan

Figure VI F 1f