

EAST GEORGIA STATE COLLEGE
Campus in the Pines

Swainsboro, GA

UGA College of Environment & Design
2018 Master Plan



View of Bobcat Villas across Ezra Pond.
Photo from EGSC.

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FORWARD

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Commencement Day.
Photo from www.communitycollegereview.com.

LETTER FROM CED DEAN DAN NADENICEK

Over the years, whenever East Georgia State College (EGSC) President Bob Boehmer and I met, our conversation invariably turned to EGSC's need for a campus master plan and UGA's College of Environment and Design's (CED) capacity and interest to provide one. In spring of 2016, an agreement was finally struck to make that happen. During the fall of 2016 many students and faculty visited EGSC, engaged with students and faculty there, and completed essential research and analysis led by Professor Alfie Vick, prior to entering the design phase of the process.

During the spring and summer semesters of 2017, preliminary concepts, four alternatives, and a proposed final master plan were completed. Students and faculty also provided necessary illustrative drawings, design development drawings, and green infrastructure ideas.

All of those pieces were completed under the leadership of Professor Donnie Longenecker, Dr. Danny Sniff, and Professor Georgia Harrison Hall. The work could not have been accomplished without the essential contributions of two graduate assistants, Leslie Palacios and Danielle Schwartz.

Illustrated within these pages is a very unique master plan for a land rich institution. Recent land gifts to EGSC have bolstered an already important environmental stewardship focus. This plan titled "Campus in the Pines," captures EGSC's environmental imperative, while also building upon the unique cultural aspects of the institution.

All of us in the CED consider it a privilege to have worked so closely with East Georgia State College.

DAN NADENICEK
CED Dean

1.0 INTRODUCTION

1.1 PURPOSE

The Master Plan for East Georgia State College was developed in response to the need for expansion of the college. Charged with meeting the expectations of stakeholders and reimagining a more resilient institution, the UGA College of Environment and Design offers this master plan as a way to encourage the sustainable development of the campus over time.

This plan is meant to bring a balanced perspective to campus landscape design, taking into consideration the traditional values of aesthetics, ecological conservation, and long-term maintenance as the college continues to grow. The proposed changes to the campus are meant to unify the campus, giving it a unique sense of place while engaging the community with college life.

The purpose of the plan is to provide a framework that allows EGSC and Swainsboro to achieve positive growth. Through its implementation, we hope to create an enriched experience for students, faculty, and visitors, while also providing ecological services, climate regulation, and habitat functions. By building an inspiring landscape that enhances the learning, living, and working environment of the college, EGSC will act as a model institution for the region.



Students gather around new entrance sign.

1.2 BACKGROUND

COLLEGE HISTORY

In the mid 20th Century Emanuel County identified a need for a higher education institute to serve the surrounding communities that were underserved by higher education. In 1956 the state was urged to establish a 2-year college to be located centrally in the city of Swainsboro. In 1971 the Georgia Board of Regents granted approval for a campus site within the City of Swainsboro.

Soon after, George W. Walker was named the school's president. Enrollment began in 1973 with 167 students for the Fall semester. The inceptive class was housed in temporary classroom space in existing buildings in the city.

In the mid-80s the Board of Regents resolved to move from Junior College designation to College to create new level of higher education that was separate from the Technical College and the University. Emanuel Junior College was redubbed East Georgia College (EGC) creating a new name and regional identity for the school.

At the 2011 Board of Regents meeting East Georgia College petitioned to become a four-year institute. East Georgia College transitioned, in 2012, from a two-year college to a state college, and was authorized to grant targeted baccalaureate degrees. Although now East Georgia State College, the mission as an access institute remains a central goal through its continued offerings of associate degrees and general education curriculum for transfer credit.

The College is strategically poised in East-Central Georgia as a significant partner to educate, enrich, engage and economically enhance lives.

CAMPUS HISTORY

In 1972 Emanuel County received a donation of 190 acres from the Luck Flanders' family farm on the east side of Swainsboro. With the addition of 17 acres adjacent to the town, for a combined 207 acres, the campus grew to 207 acres.

By the fall of 1974, six academic and administration buildings were created to accommodate the incoming students. The college continued to serve as a two-year junior college with increased academic offerings.

A new phase of growth began in 2001. EGSC began to create more services for its enrollment. The Luck Gambrell Center, completed in 2001, contained a library, auditorium, coffee shop, and executive offices.

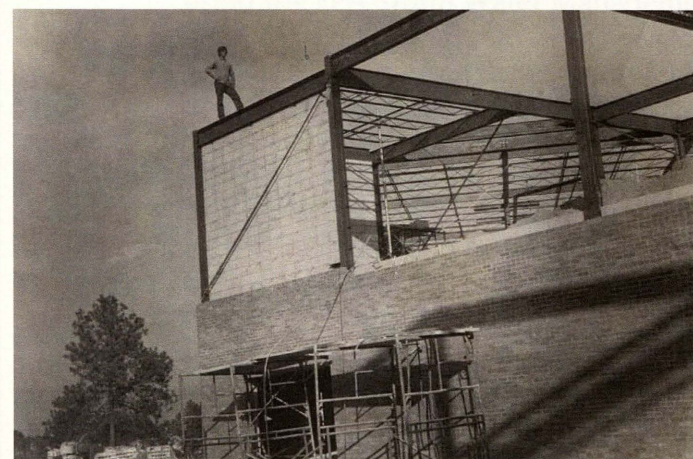
As the College continued to grow, more additions and alterations took place. In 2003, the Physical Education Building was augmented to include an indoor gymnasium, fitness center, art studios and additional classrooms. In 2007 the Jean A. Morgan Activities Center was renovated, creating student meeting space and larger administrative offices. 2007 also saw completion of the Academic Center for Excellence (ACE) in the Learning Commons. The disc golf course, the 10k Cross Country Course, Ezra Pond, and Pa's Pond were also completed during this time.

In 2008, EGSC opened a southern entrance at the intersection of Lambs Bridge Road and Meadowlake Parkway. The entrance was connected to the main campus by Madison Dixon Road, named for one of the community leaders who pushed for the college's creation.

In May 2010, the Sudie A. Fulford Community Learning Center (The Fulford Center) opened as a unique educational resource for Emanuel County and surrounding communities. Funding for the facility's construction was made possible through a generous donation to the East Georgia State College Foundation from Mr. and Mrs. A. D. "Pete" Correll in remembrance of Mrs. Correll's mother, Sudie A. Fulford.

In summer 2010, the college constructed an athletics complex behind the gymnasium, adding a baseball field, softball field, new tennis courts, and related support facilities. The library was renovated in 2012 in accordance with the colleges new four year status.

Increased enrollment created a need for student housing. In 2009, the EGSC Foundations unanimously voted to appropriate 10 acres on the north side of campus for a dormitory. In 2011, Bobcat Villas opened with accommodations for 200 students. A second phase, Bobcat Villas II was completed in 2016, bringing total accommodations to 412 students.



Constructing some of the college's first buildings.



Students have been canoing on the ponds since the college's inception.

Photos from EGSC.



Students gather around an old college sign.



The first groundbreaking of EGSC's campus.

1.3 PRINCIPLES

EGSC seeks a landscape that is not only consistent with but supports and reinforces its values. The following general principles have therefore guided and underlie the recommendations of this Master Plan.

MISSION

East Georgia State College as is an Access Institution, with a mission is to serve our students, community and state.

VISION

East Georgia State College strives to meet every student's learning needs by making East Georgia State College an exciting and invigorating place.

GUIDING PRINCIPLES

- I. Our students' needs are at the core of our mission.
- II. Enrich the educational, residential, and student life of the campus.
- III. Prepare students with critical thinking skills by preparing them for a diverse and technologically expanding global workplace.
- IV. Instill scholarly values for a lifelong pursuit of learning.
- V. Disseminate East Georgia State College's mission within the region.
- VI. Be good stewards of the campus environment.
- VII. Build financial strength and budgetary flexibility to support innovation and changing needs.
- VIII. Plan for diversity and celebrate the human spirit, cultures, religions, gender, race, and divergent viewpoints.
- IX. Foster partnerships with out local and expanded community.



EGSC students race cardboard boats across Ezra Pond during the 2016 Bobcat Regatta. Photo from EGSC.

1.4 PROCESS

In the spring of 2016 the UGA College of Environment and Design was retained to develop a Master Plan for the East Georgia State College campus. Recent land donations to the college and increased enrollment projections created the opportunity to reevaluate the long-term planning strategy of the campus. The process for developing the 2018 Master Plan is defined in four phases (right). Below is a timeline that illustrates the evolution of the College of Environment and Design's Master Plan for EGSC.

Initiation Phase (April - October 2016)

Students and faculty visited the site to meet with community and campus stakeholders to define the project purpose, scope, and goals. Students became familiar with the history of the institution and campus grounds.

Green Infrastructure Plan (October - December 2016)

The MLA Ecology Studio collected data on campus drainage, soil infiltration, topography, canopy cover, land use, and ecological resources. To create a stormwater management plan, the students modeled the EGSC campus using the EPA Storm Water Management Model (SWMM) for both existing and proposed site conditions. The Georgia Stormwater Management Manual was also used to recommend better site development principles and green infrastructure strategies.

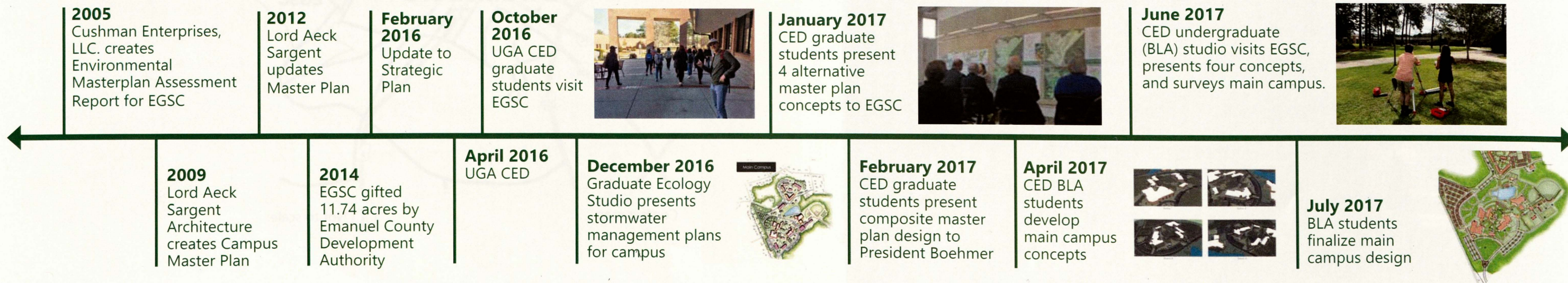
Long-term Master Plan (January - February 2017)

The following spring, the MLA Urban Design Studio conducted site inventory and analysis on building and land use, circulation, and programming requirements. After using case studies, collecting data, and receiving stakeholder input, a final physical master plan for the campus was proposed.

Main Campus Plan (March - July 2017)

Once the graduate students finalized the long-term plan for the campus, two undergraduate studios collaborated to flush out a more detailed design that focused on the existing campus core at EGSC.

Timeline of Master Plans





Entrance to woodland trails on campus.
Photo by Devyn Quick.

2.0 EXISTING CONDITIONS

The process used to create this master plan was initiated with an analysis of the existing campus conditions from several perspectives: campus context, grounds, and infrastructure. This research consisted of two methods: consulting previous master plans and current GIS data from the county and site reconnaissance as a way of ground-truthing what the data showed.

This section of the report presents an evaluation of the campus combining graphic and verbal observations. Included are digital map renderings that illustrate the findings from GIS and the Environmental Assessment data. Photos further show the character of the campus, providing visual evidence of what the maps represent.

By summarizing the existing conditions of the campus, this section is meant to inform the master planning process by helping to better understand the opportunities and constraints of the EGSC campus and surrounding environs.



Context map.

ⓘ Not to scale.

2.1 CONTEXT

Currently, East Georgia State College (EGSC) is a rural campus just east of Swainsboro, GA. EGSC Swainsboro currently enrolls approximately 1,100 students with 388 of those living in the recently built dorms, the "Bobcat Villas," and the other 65% commuting from the surrounding area, no more than 50 miles away.

TOWN & GOWN

The EGSC campus provides many resources for the Swainsboro community, including a disc golf course, nature trails, library, and even a planetarium. Yet a divide remains between the Swainsboro community and EGSC, despite its proximity and abundant amenities. The campus currently feels isolated due to obscure entrances and the large swaths of pine forest that surrounding it.

Swainsboro, while it has a charming downtown and is known for its antique shops, has little in the form of entertainment for students. There are a few local restaurants, but the majority of dining establishments are fast food chains. This only encourages students who live on campus to stay on campus, since there is not much incentive to explore the surrounding area. One of the goals of this master plan is to encourage an improved town and gown relationship by fostering the development of new amenities that encourage more permeability between the boundaries of the campus and community.



Map of surrounding environments.

Not to scale.



UGA graduate students explore downtown Swainsboro. Photo by Landon Woodward.

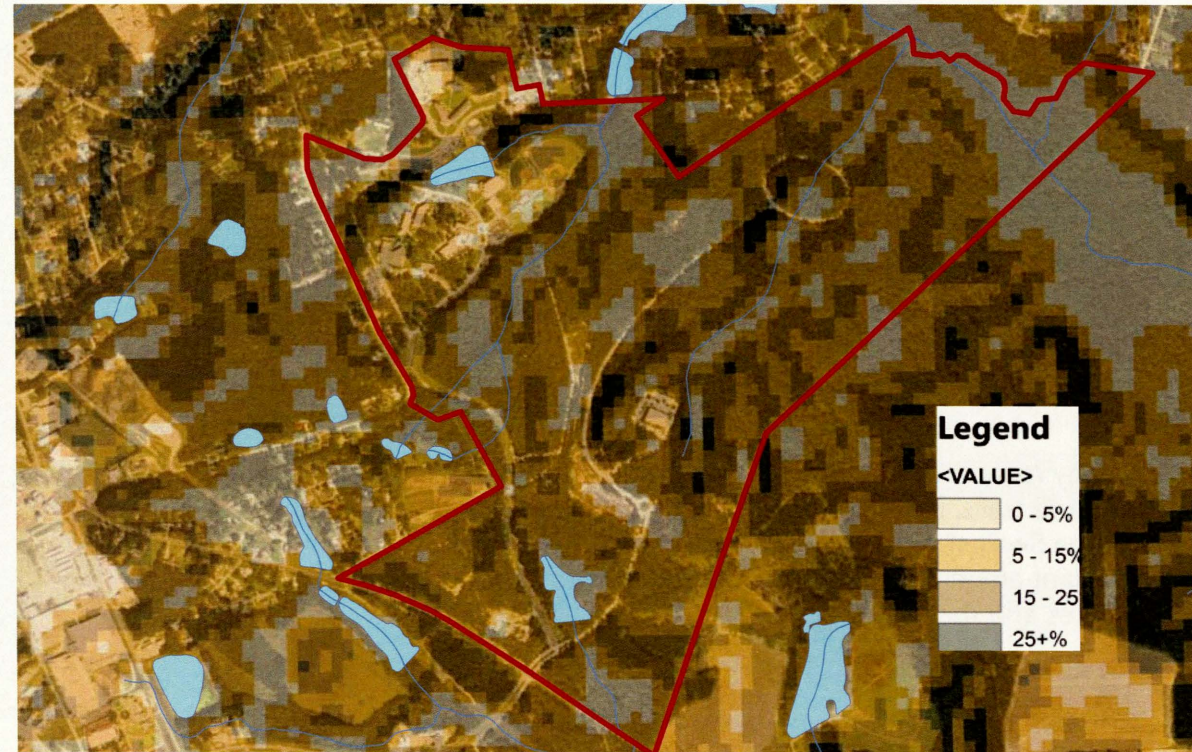
2.2 CAMPUS GROUNDS

This section primarily looks at the existing landscapes, natural forms, and habitats that comprise the EGSC campus. This includes the campus land forms, defining ecological features, vegetation, hydrology, soils, views and landmarks.

CAMPUS LAND FORM

The structure of the campus is shaped by its underlying topography (see maps at right). Overall, the campus is relatively flat (0-10% slope) with a few small hills where the majority of the college infrastructure is located. The campus is set on two small hills that slope into Ezra Pond.

The elevation changes on campus are used to create views and vistas towards its lakes, adding an element of spatial drama that emphasizes the campus's iconic landscape features – Ezra and Pa's Pond.



Slope map.

⬆ Not to scale.



Topographic map of campus.

⬆ Not to scale.

ECOLOGICAL DEFINING FEATURES

With only 17% of its land developed, the remaining 415 acres of EGSC's campus provides a unique and disappearing habitat for some of Georgia's native plants and animals. The goal of this master plan is to provide thoughtful, practical recommendations for expanding the college while preserving the environmental resources that make the campus special.

The dense pine forest on EGSC's campus is a refuge for threatened species such as the Gopher tortoise and Red Cockaded woodpecker. The gopher tortoise, in particular, is a keystone species, meaning it plays a pivotal role in its native community by providing habitat for other species in the ecosystem. The Gopher tortoise is named for the large, deep burrows that it digs that provide a home to rabbits, mice, frogs, and other critters. Their burrows also provide homes for the Indigo snake, another threatened species in Georgia.



alabamabirdingtrails.com

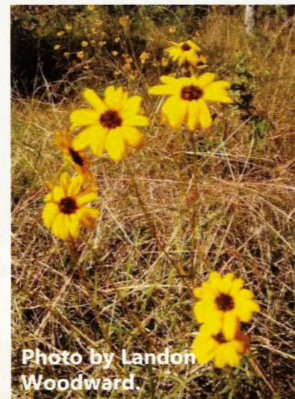
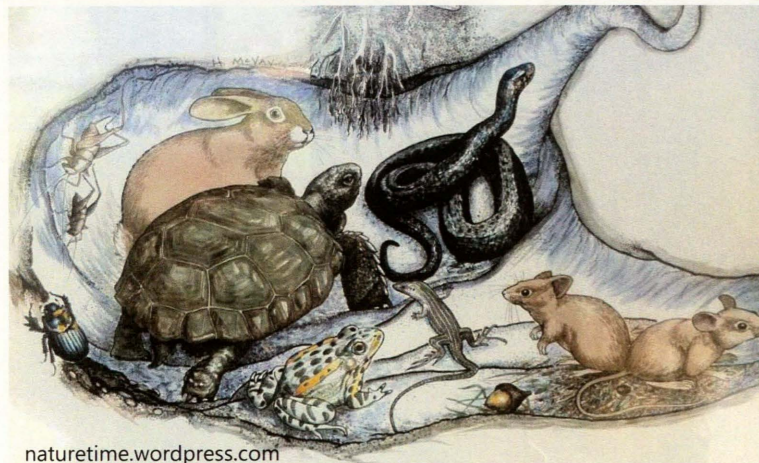


Photo by Landon Woodward

Clockwise from left: the Red Cockaded woodpecker is another species whose habitat-mature pine forests-is decreasing; flowers; gopher tortoise burrow found on campus; gopher tortoise burrows provide a home for many animals, including the threatened indigo snake.

Right: Loblolly pine forest on campus (Photo by Landon Woodward).



naturetime.wordpress.com

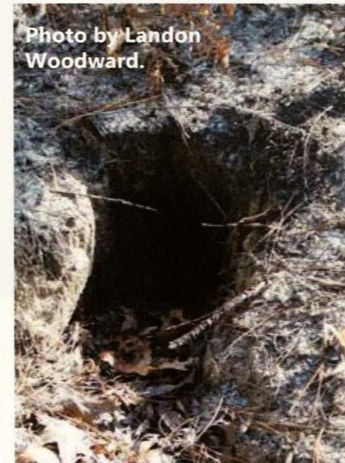
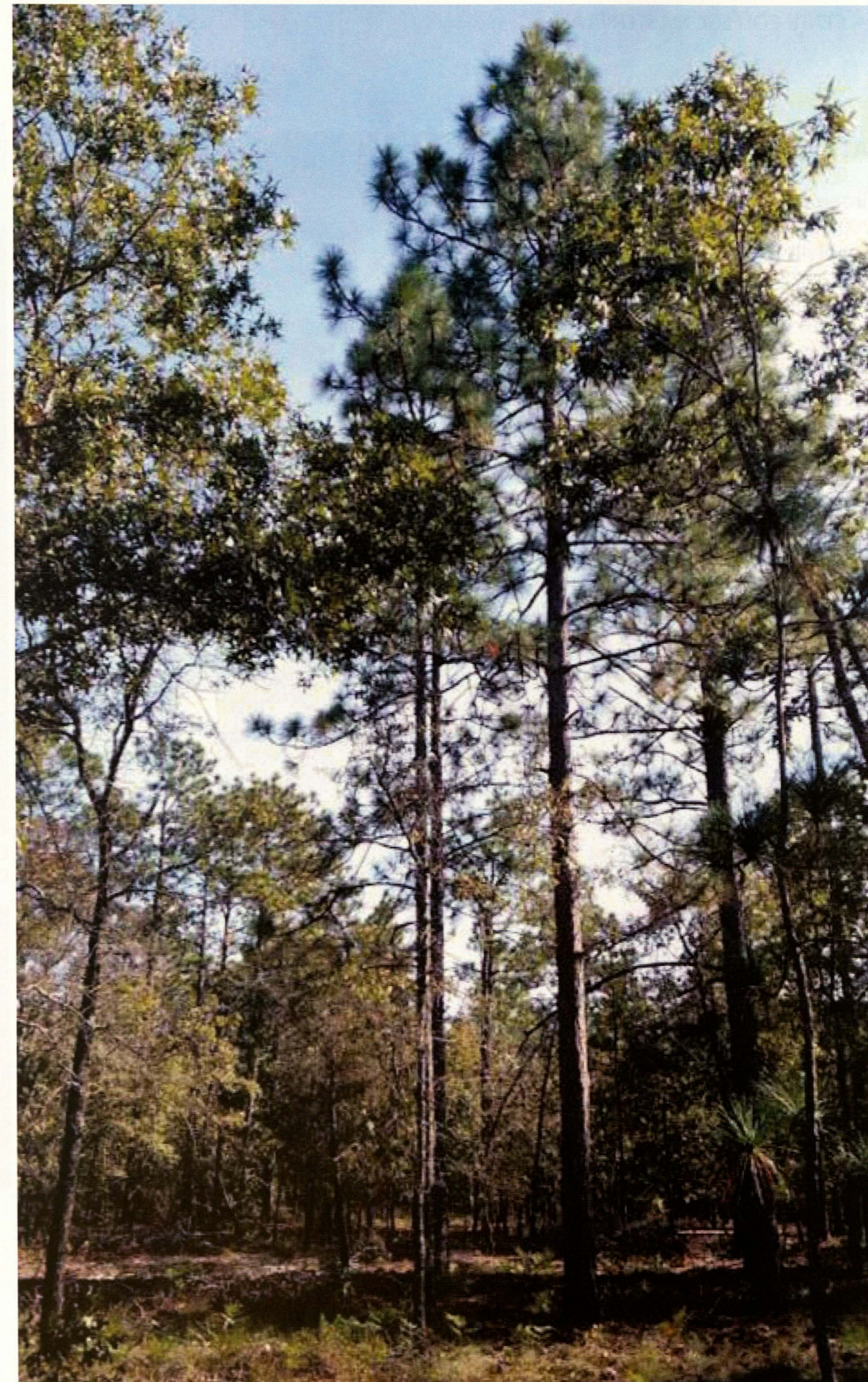


Photo by Landon Woodward



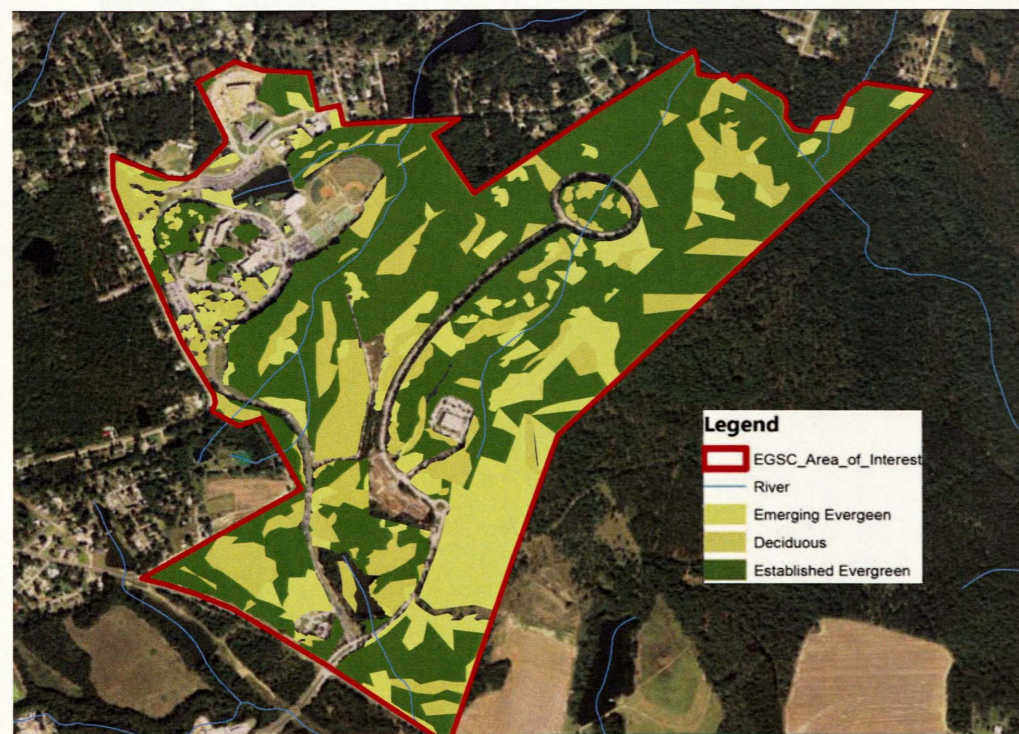
VEGETATION

The Environmental Assessment Report performed by Cushman Enterprises LLC. in 2005 delineate three environmental zones throughout the campus: upland sandhills with portions of bottomland hardwood forest; a bog type pine forest; and swamp forest habitats.

The vegetation located in the upland sandhills includes turkey oak (*Quercus laevis*), bluejack oak (*Quercus incana*), long-leaf pine (*Pinus palustris*).

The bottomland hardwood forests of EGSC are typically located along stream corridors and includes red maple (*Acer rubrum*), long-leaf pine (*Pinus palustris*), sweetbay magnolia (*Magnolia virginiana*), water tupelo (*Nyssa aquatica*), and sweetgum (*Liquidambar styraciflua*). The subcanopy includes holly (*Ilex opaca*) and azalea (*Rhododendron* spp.).

The bog forest habitat on campus is dominated by *Pinus elliottii* with portions of *Pinus palustris*. Tag alder (*Alnus serrulata*) forms a shrub layer. With this type of forest, the report recommends prescribed burning as a maintenance regime.



Vegetation Map.

Not to scale.



EGSC students participate in a clean-up of the pitcher plant habitat on campus with the help of the Department of Natural Resources. Below are some of their botanical findings. (Photos from EGSC)

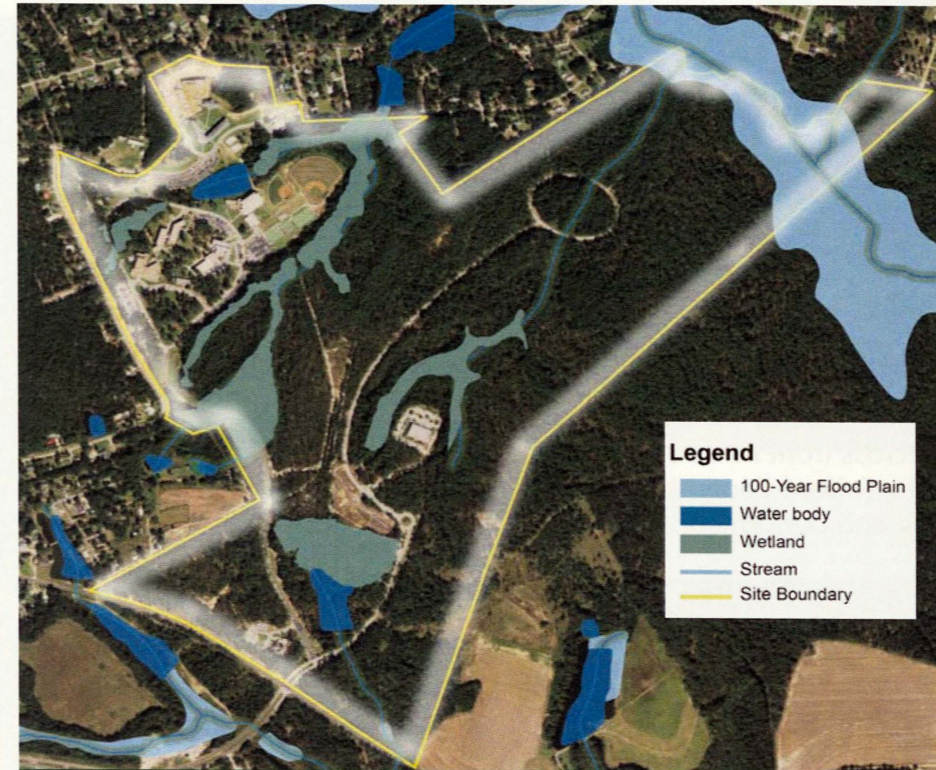


HYDROLOGY

EGSC's campus has two ponds, Ezra and Pa's Pond, and four main tributaries, acting as the only "stormwater management" systems on campus. These ponds serve as a catchall for surface water runoff and sediment, which is distributed to larger streams off site. Site surfaces (walkways, parking lots, roof tops) equal 8.22% impervious cover, totaling 40.6 acres of the 495-acre site. On the main campus, site runoff flows directly into Pa's Pond and the surrounding wetland and stream systems. There is little infiltration in these areas due to heavily compacted soils.

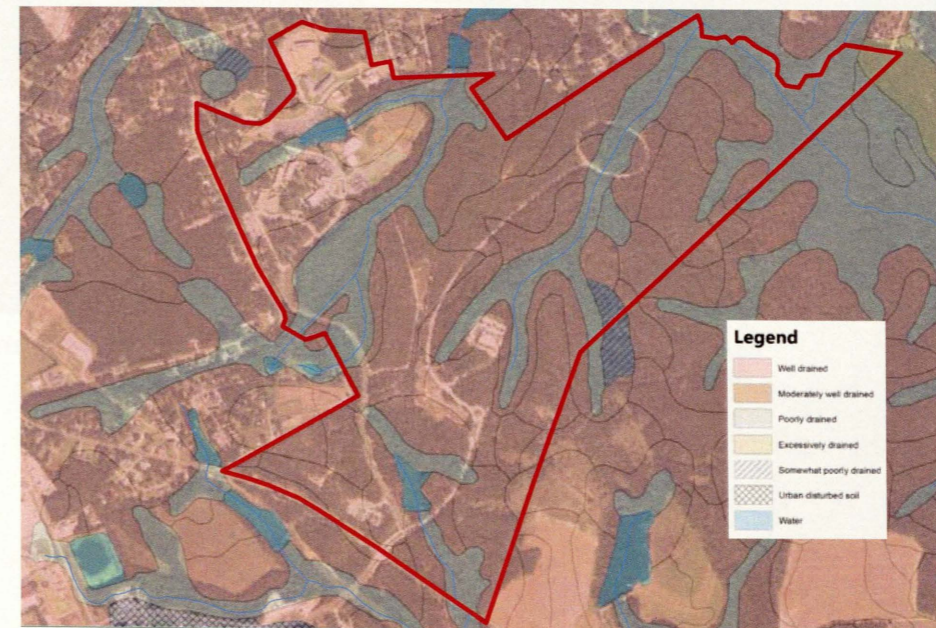
SOILS

Emanuel County, Georgia is located in the Southern Coastal Plain Major Land Resource Area. The USDA's Natural Resources Conservation Services (NRCS) Soil Survey reveals the EGSC campus predominantly consists of upland, well-drained sand to sandy loam soils typical to the Coastal Plains. The county consists of well-developed streams over gravelly, clayey sand. The areas on either side of the existing streams on the site consist of moderate to frequently flooded wetlands of the Kinston, Bibb, and Pelham series.



Hydrology map.

Not to scale.



Map of soils.

Not to scale.

VIEWS & LANDMARKS

The iconic landmarks of East Georgia State College are its two ponds, Ezra and Pa's Pond. The academic core of campus and the dormitories are sited facing Ezra Pond, where many recreational sports and special events take place. Pa's Pond, on the southern portion of campus, provides a beautiful backdrop to the college's disc-golf course. The miles of cross-country trails that run through EGSC's pinewood forest and wetlands also contribute scores of views of the landscapes that give East Georgia a distinct sense of place.

In terms of the built environment, the Sudie A. Fulford Community Learning Center is located on campus across from Pa's Pond. An educational and cultural hub for Swainsboro, the Fulford Center hosts planetarium shows, workshops, exhibitions, classes, and performances.



View of Ezra Pond from the Bobcat Villa patio.
(Photo from communitycollegereview.com)



The Sadie A. Fulford Center.
(Photo from EGSC)



Aerial view of main campus, looking toward Ezra Pond. (Photo from EGSC)

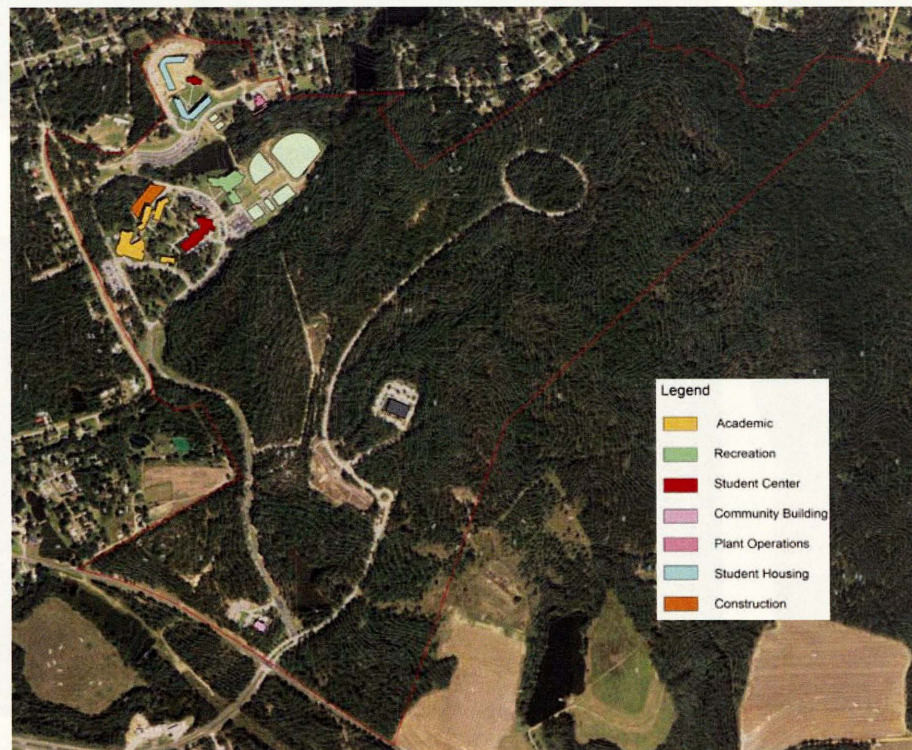
2.3 CAMPUS INFRASTRUCTURE

This section looks at the campus's built environment and system structures. It studies the site's buildings, circulation and parking, stormwater systems, and recreational facilities.

BUILDINGS

The campus currently houses 11 buildings, a student activities center, two institutional buildings, two academic buildings, a gymnasium, community center, two residence halls, a dormitory recreation center, and a plants operations building.

Most of the buildings were built in the 1970s and feature red brick facades. They are two to three stories high and built to a human scale. Besides the more recent constructions (the dormitories and student activities center), many of the academic and institutional buildings look dated and lack clear entrances. The two dormitories maintain and reinforce the existing aesthetic of the campus, but the buildings are much larger than earlier construction and seem out of scale.



Building Use map.

Not to scale.



Photo from EGSC

Georgia L. Smith Building.



universitybusiness.com

Bobcat Villa: student housing.



www.usg.edu

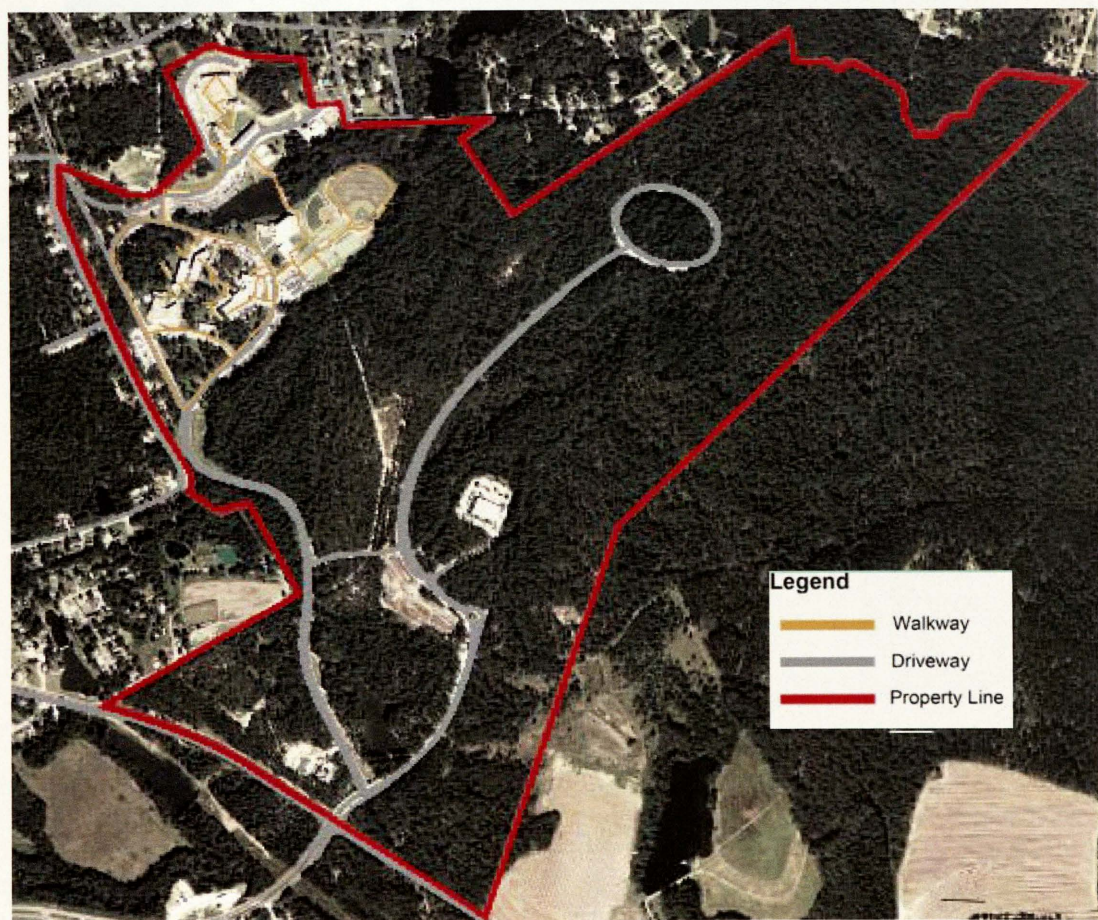
Student Services.

CIRCULATION & PARKING

EGSC is primarily a commuter college. As enrollment increases, so will vehicular traffic. The current circulation patterns of the campus are designed for vehicles rather than the pedestrian. Roads and large parking lots cut through major axes on campus, imposing on pedestrian movement and impairing vistas. The parking lots also feature very little vegetation and no trees to provide shade and assist with stormwater management.

The parking lot just north of Ezra Pond separates students who live in the residence halls from the campus. Through interviews with students, we found that few people wanted to trek back and forth across a wide expanse of asphalt that emits a lot of heat over the summer.

Wayfinding is also not very clear. There are few signs, and the ones that are present do little to provide direction.



Building Use map.

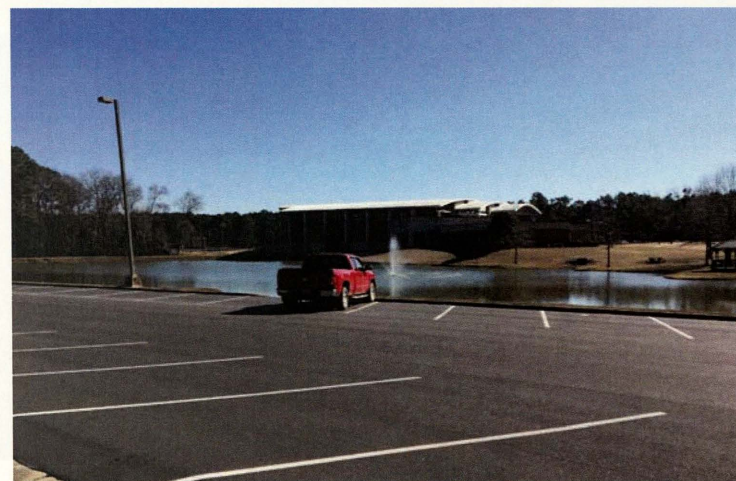
ⓘ Not to scale.



Bridge across Ezra Pond.



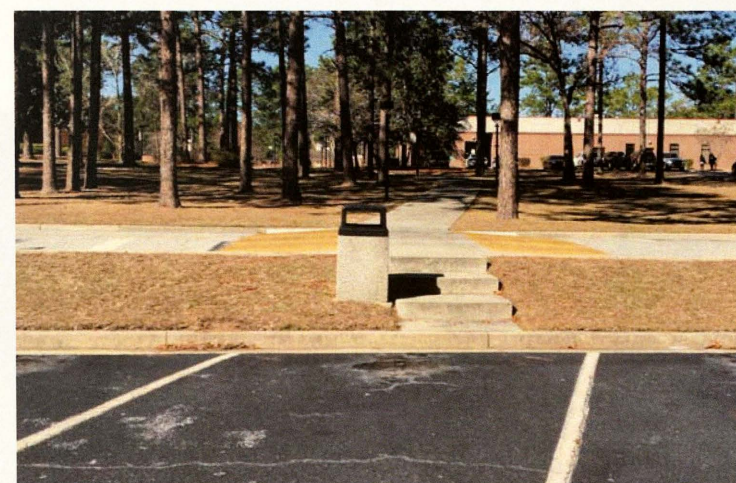
Sidewalk through main campus quad.



Parking lot below Bobcat Villas allows runoff to go swiftly into Ezra Pond.

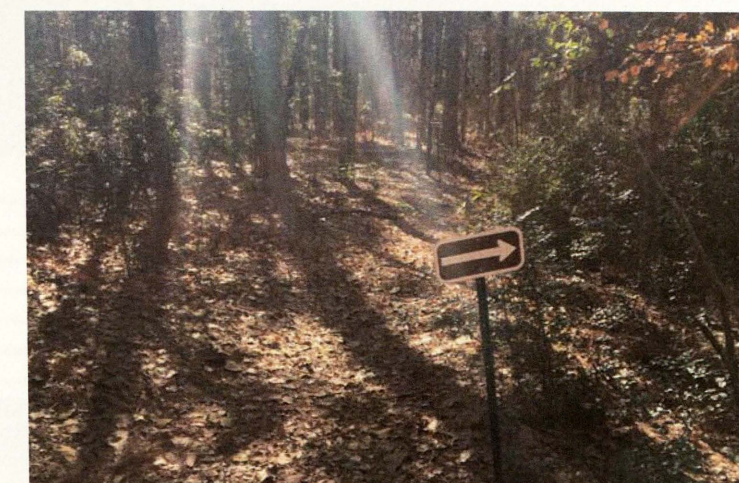


Path created by cars driving on lawn by the rec fields.



No clear path to stairs leading from parking lot.

Photos by Devyn Quick.



Trail through the campus pine forest and wayfinding sign do not clearly define the path one should take.

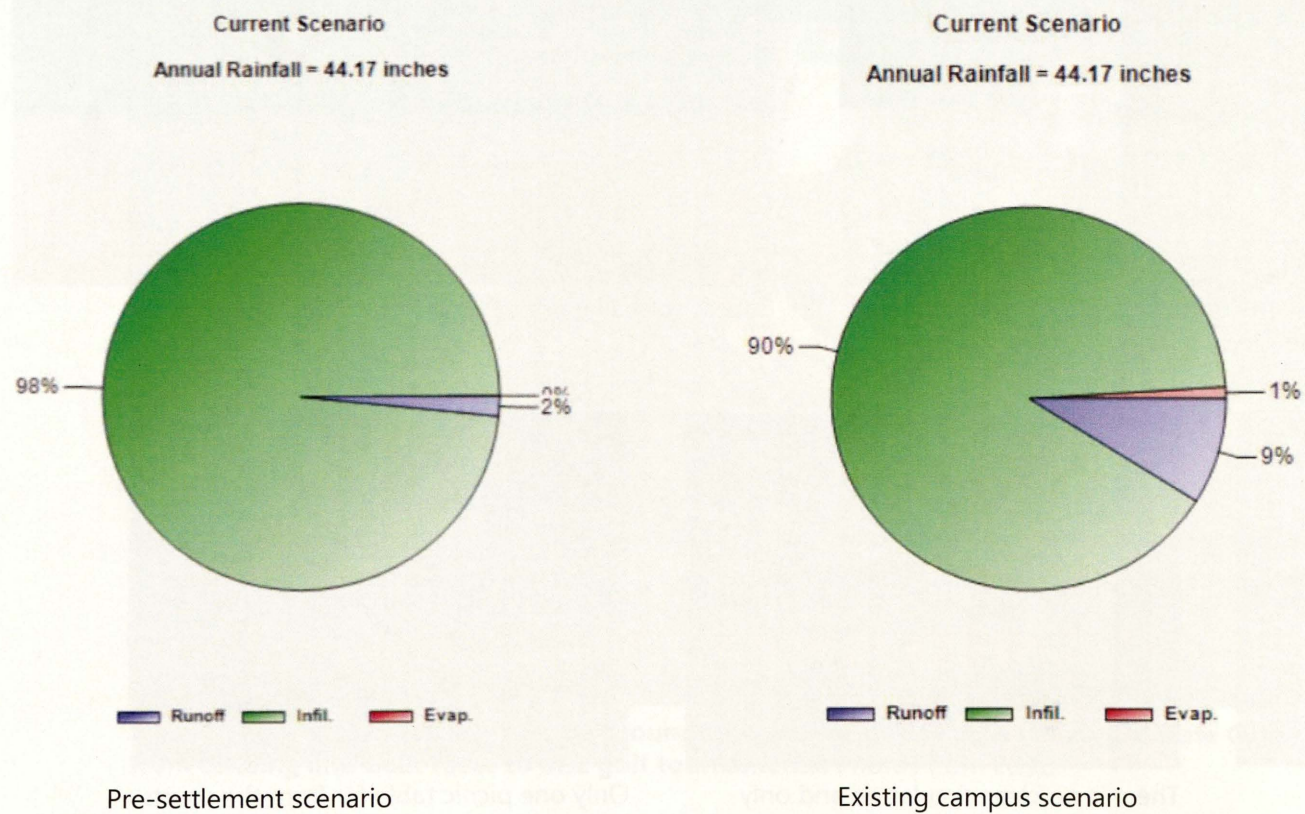
EPA Calculator Statistic	Pre-settlement Scenario	Existing Scenario
Study Site (494.6 acres)	(0% Impervious)	(8.22% Impervious)
Average Annual Rainfall (in.)	44.17	44.17
Average Annual Runoff (in.)	0.72	3.95
Days per Year with Rainfall	82.71	82.71
Days per Year with Runoff	1.3	16.66
Percent of Wet Days Retained	98.43	60.6
Smallest Rainfall w/Runoff (in.)	0.29	0.38
Largest Rainfall w/o Runoff (in.)	4.7	0.49
Max. Rainfall Retained (in.)	4.7	4.32

EPA SWMM Statistics of existing conditions

STORMWATER

The EPA's Stormwater Management Model (SWMM) Calculator was used to measure stormwater runoff from the study site. Looking at the pre-settlement conditions of the site, the SWMM measured 2% stormwater runoff under forested conditions (0.72"/yr.) (Table left). This provides a historical context of the original landscape, therefore framing our vision for the site moving forward. The existing site conditions (83% forest) measure 9% stormwater runoff (3.95"/yr.). With no stormwater controls on the developed portion of the site, the rate of runoff will increase significantly if the campus expands further into its undeveloped longleaf pine habitat without control measures.

A more detailed report of the existing stormwater conditions on campus can be found at: https://www.epa.gov/sites/production/files/2017-04/documents/egsc_508.pdf.



ATHLETIC & RECREATIONAL FACILITIES

Athletics and recreation play a large role in EGSC's campus culture and also offer opportunities for the Swainsboro community to become involved in campus life. The college has several team sports: baseball, softball, and men's and women's basketball. In addition, the college hosts several sporting events throughout the year for students, including kickball games and tennis classes. Students also organize their own activities such as pick-up basketball and volleyball.

EGSC's unique ecosystems support unique recreational opportunities on campus. Miles of cross-country trails and a disc golf course is located within Piney Woods. Students are also able to canoe on Ezra Pond and even sail their own cardboard boats across it during the annual Bobcat Regatta (see facing page).

While East Georgia State College has lots of land and facilities to host a variety of outdoor sports, hardly any consideration is given to the spectator in their design. There is no clear circulation or direction around the athletic fields and no place to sit and watch the sporting games and events. In a photo shown to the right, one can see that visitors have set up lawn chairs under the awning of the gymnasium in order to get some shade. There are no covered areas closer to the fields for them to watch the game.



Dash with a Splash 5K and Fun Run for community health. (Photo from EGSC)



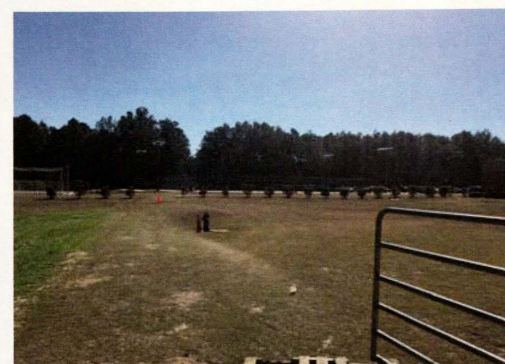
EGSC Gymnasium. (Photo from georgiaonline.org)



Students play volleyball by the dorms. (Photo from EGSC)



Bobcat softball game. (Photo from EGSC)



The only semblance of a path leading towards the rec fields is a row of bushes.



View from behind the softball field.



View of rec fields.



There is no clear circulation and only a single gazebo provides shade to spectators.



Only one picnic table far from the courts (left) provides a place to watch tennis matches.

Photos by Devyn Quick.



So many events and activities center around Ezra and Pa's Pond at East Georgia State College, from canoeing and boat races to disc golf tournaments. Photos from EGSC.



3.0 PRECEDENT STUDIES

After conducting an analysis of existing conditions, the graduate studio looked at case studies of campuses across the US in order to learn more about the history of campus planning and glean ideas for what creates a unique and unified campus culture. Before beginning design, these precedent studies provided resources for students to develop their concepts (see section 4.0). Examples explored include Brandeis University, Florida Southern College, Middlebury College, University of the South (Sewanee), the University of Virginia, the University of California (Santa Cruz), and Wellesley College. The key findings are presented on the following pages.

3.1 BRANDEIS UNIVERSITY

BRANDEIS MASTER PLAN

Waltham, Massachusetts | Brandeis University | 235 Acres | Adopted 2001



MASTER PLAN OBJECTIVES

- Foster Academic and Research Excellence
- Recruit and Retain Students
- Renew Critical Building Systems and Infrastructure
- Rationalize Pedestrian and Vehicular Circulation
- Enhance Sense of Place
- Define External and Community Relationships



Existing Fellows Garden



Proposed Fellows Garden

<http://www.brandeis.edu/masterplan/>
<http://www.brandeis.edu/masterplan/documents/taskforce/docs/facilities-and-campus-evolution-task-force-report.pdf>

The long-range vision is that the deep relationship between the campus and facilities and the University values should become plainly obvious to all. The spaces – interior, exterior, and virtual – that help bind the Brandeis community together, to the evidence of social justice research, learning, and action throughout campus – should communicate what Brandeis stands for and what Brandeis is and does.

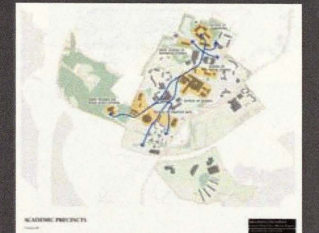


Brandeis University Campus Master Planning project provides an opportunity for the University to reflect upon its history and heritage, to assess the condition of its campus and facilities, and to develop a course of action to address these needs in the future.

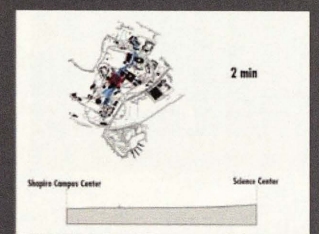
5 STRATEGIC THEMES

- Reflecting our Values and Commitments
- The Entire Campus as a Learning Landscape
- Building Community
- Efficient and Effective Use of Physical Resources
- Sustainability

PEDESTRIAN SPINE



Academic Precincts Along the Pedestrian Spine



Amount of Campus within 2 Minute Walk

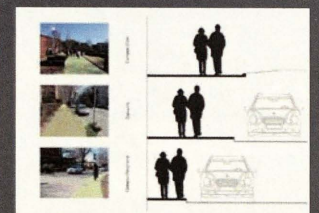
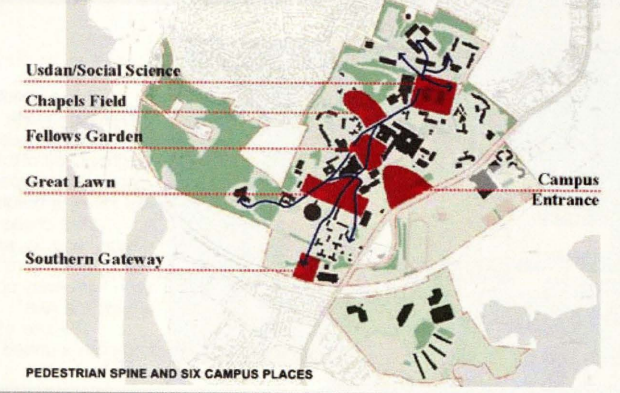


Illustration of Decreasing Pedestrian Sidewalks Moving Out from the Center of Campus



LANDSCAPE STRATEGY PLAN



PEDESTRIAN SPINE AND SIX CAMPUS PLACES

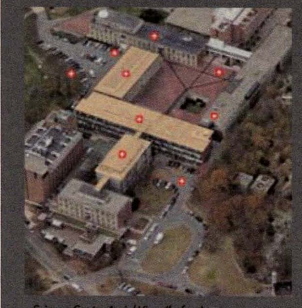


Vehicular Circulation Loop

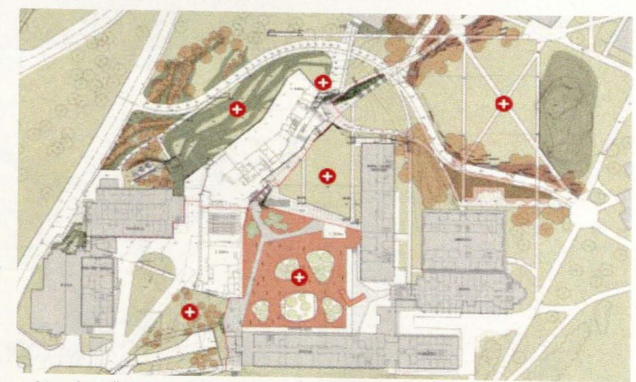
PEDESTRIAN ORIENTED DESIGN

The central focus of the general campus layout, in the Brandeis Master Plan, is the creation of a pedestrian friendly environment. By pushing the vehicle circulation out to the periphery of the campus, the design is able to create a central green corridor, or "pedestrian spine" through the center of campus. Off of this central spine, the plan lays out six strategic zones of placemaking.

CARL J. SHAPIRO SCIENCE CENTER



Science Center Aerial View (before)



Science Center Illustrative Plan (After)

PLANNING STRATEGY:

The new Carl J. Shapiro Science Center is the cornerstone project in an ambitious expansion and renewal of the sciences at Brandeis University. With 155,000 gross square feet of new research, teaching and instrumentation space, the building functions as a catalyst for scientific innovation, interdisciplinary discourse and a renewed vibrancy of student and faculty activity by introducing a much needed social organization to the science precinct and knitting the sciences into the fabric of Brandeis' campus.

TOTAL AREA:
558,000 sq. ft.

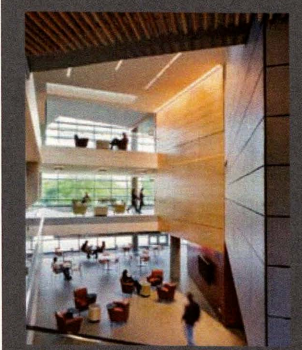
NEW ADDITION:
180,000 sq. ft.

COMPLETION:
2009

ARCHITECT:
Payette



Surrounding Campus Context Map



Interior of Science Center



3.2 FLORIDA SOUTHERN COLLEGE

Florida Southern College

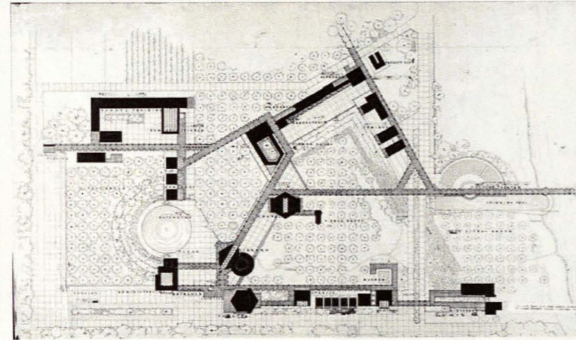
Child of the Sun Campus | by Frank Lloyd Wright | Begun in 1938

"Desire conference with you concerning plans for great education temple in Florida"

-Telegram from President Spivey to Frank Lloyd Wright

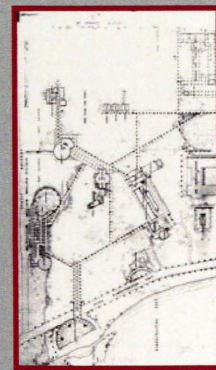
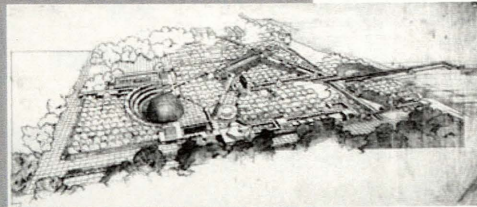
MASTER PLAN OBJECTIVES

- Unite buildings and natural landscape
- Create a local style by using local materials
- Design for the human scale

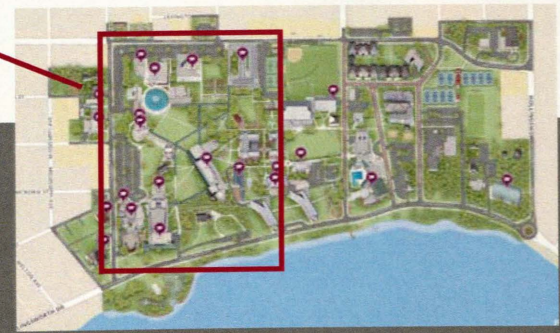


Frank Lloyd Wright's master plan for Florida Southern College is an exemplary case study for American college campuses. The plan is the culmination of Wright's career and reflects not only his architectural skills, but his ideals of education, democracy and nature. Of the original master plan, ten of the eighteen buildings were constructed, and both the Water Dome and the Usonian House have been completed in the last decade, bringing the number of Wright-designed features to twelve.

Frank Lloyd Wright was commissioned by President Spivey to work on the master plan in 1937. The campus had been developed since 1921 in a Beaux-Arts style that Wright rejected in creating his design. He chose to develop on an adjacent 30 acres site that was an orange grove in order to impose his vision and not have to engage with the existing Beaux-Arts design. His plan is very significant architecturally because it is the first college campus to be designed in a fully modern style, and what some would consider to be the first truly American college campus. While he rejected the "International Style" of modernism that was emanating from Europe, he was a proponent of regional modernism that took cues from the site and incorporated the design into the natural landscape. In this way he was able to create a "Florida form" that he used throughout the Florida Southern campus.



<< Wright's Master Plan



Current Campus Map

CASE STUDY | Annie Pfeiffer Chapel & Esplanades

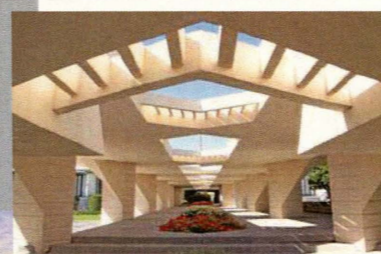
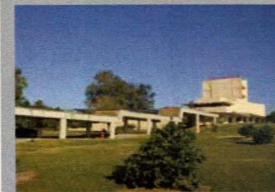


ANNIE PFEIFFER CHAPEL

Annie Pfeiffer Chapel is the original and first completed Frank Lloyd Wright building on Florida Southern's campus. It is the physical and spiritual center of Wright's Child of the Sun campus. "Beautifully placed on a slightly rising slope in a tropical garden-like environment, it is ideally a building for the meditative spirit."

"The chapel occupies the central point of campus design, and is sited at the point where the gradual elevation rise from Lake Hollingsworth levels off. It can be seen from every point on campus and almost every point around the lake."

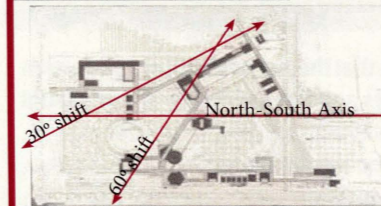
"The use of a multiplicity of architectural forms to comprise a unified whole, not only in this building, but in the overall design of the college complex, is intensely characteristic of the mastery of Frank Lloyd Wright - the parts related to one another and all related to the whole in a transcendent sense of serenity."



ESPLANADES

These cantilevered, covered walkways called the Esplanades, were to be the threads which bound Wright's separate building designs into an organic whole, which becomes a physical and aesthetic connection for the project. The esplanades zig-zag for more than 1.5 miles around campus and are 6' 8" high, the same height as a residential door opening. The roof edge is trimmed with decorative bands of copper that cause the rainwater to sheet to the ground in a

30 - 60 - 90 PATTERN



Instead of the Beaux-Arts axial plan with imposing Neo-Classical architecture, Wright organized his design on a 30-60-90 pattern and used his signature organic style to unite the buildings with the landscape. This pattern was reflected in the paths of esplanades, the hardscape patterns, and the orientation of buildings. By breaking from tradition, he created a new style of college campus - one that had a sense of surprise, was active, and took full advantage of the local landscape. His rejection of the traditional Beaux-Arts symmetry, axial plans, and curated views reflects his ideas of freedom, education and democracy. By creating paths that are orderly, yet "unpredictable" to the user, meant that the user must be active and would engage with nature, core tenants of his philosophy about education.

LOCAL MATERIALS

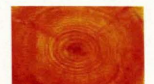
Wright chose to use local sand, coquina (a type of local limestone), and cypress wood to create what he called the "Florida form" of the college. Each of the buildings in Wright's plan was designed for a specific use, and took on a different form, footprint and scale. The use of common materials throughout each of the buildings unifies the campus as a whole, in addition to the esplanade structures that physically link the buildings.



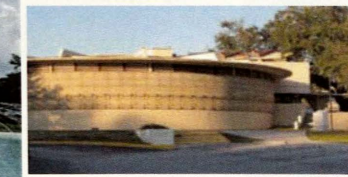
Coquina



Sand

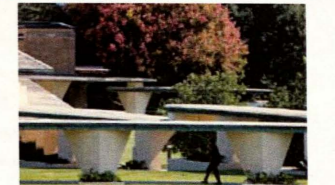


Cypress



INTEGRATION OF LANDSCAPE

Wright's signature architectural style was his organic architecture which was born from the belief that buildings should be designed out of the surrounding landscape. At Florida Southern College, the site was originally an orange grove. He specified that as many of the trees as possible be saved, using the scale of the trees to design buildings of a similar scale. He used the shape of the orange trees to inform the design of the piers for the esplanades. He was sensitive to the Florida climate, and attempted to accommodate for this in his designs, which is best represented by the esplanades. In addition to the physical inspiration he drew from nature, at Florida Southern he oriented the buildings to capture views of Lake Hollingsworth as much as possible.



3.3 MIDDLEBURY COLLEGE

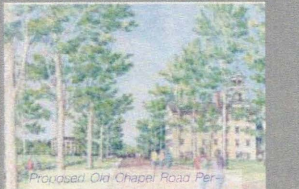
MIDDLEBURY COLLEGE

Middlebury, Vermont | Andropogon Master Plan | 350 Acres | Adopted



MASTER PLAN OBJECTIVES

- Promote Sustainability in all College Operations
- Enhance Middlebury's Relationship to the Landscape
- Reinforce the Campus's Architectural Character and Scale
- Promote an Accessible Pedestrian-friendly Campus
- Improve the Relationship between Town and College
- Increase the Variety of Campus Open Spaces
- Optimize Campus Circulation
- Foster the Twelve-Month Campus
- Clarify the Distribution of Campus Functions
- Establish Pathways



THE CAMPUS is located between the Adirondack and Green Mountain ranges, which serve as a daily pictorial reminder of the uniqueness of the site. Logically, the ecology of the region directly informs the campus ecology.

When local residents founded "The Town's College" in their neighborhood in 1800, its eventual size would have been difficult to accurately predict. Today the college's expanse rivals that of the city itself. In fact, the two are so intermingled they are largely indistinguishable from one another. In an effort to balance its growing population, demand for consumption and resources, and relationship with the town, the mission of the College is founded in ecological sensitivity.

THE 50-YEAR MASTER PLAN DEVELOPED WITH A FOCUS ON PRINCIPLES

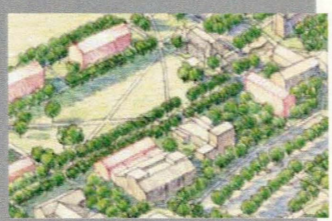


"knowledge without boundaries"
-Middlebury Strategic Plan, 2006

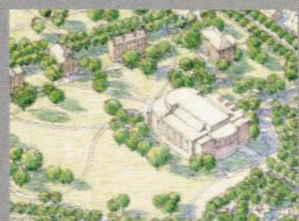
INITIAL DEVELOP-

In May 2008, the Middlebury College board of trustees approved the most environmentally aware campus master plan in its 208-year history. The plan, based on a foundation of ecological support, will be shaping Middlebury's future growth and development for the next 50 years.

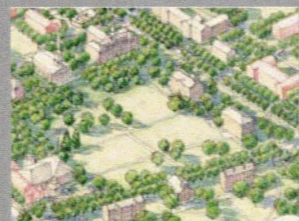
The college community collectively developed the campus master plan in keeping with the objectives of its "Knowledge without Boundaries" (2006) Strategic Plan. The process also provided occasion to strengthen the town-gown relationship. Regional and local officials, planners, and board



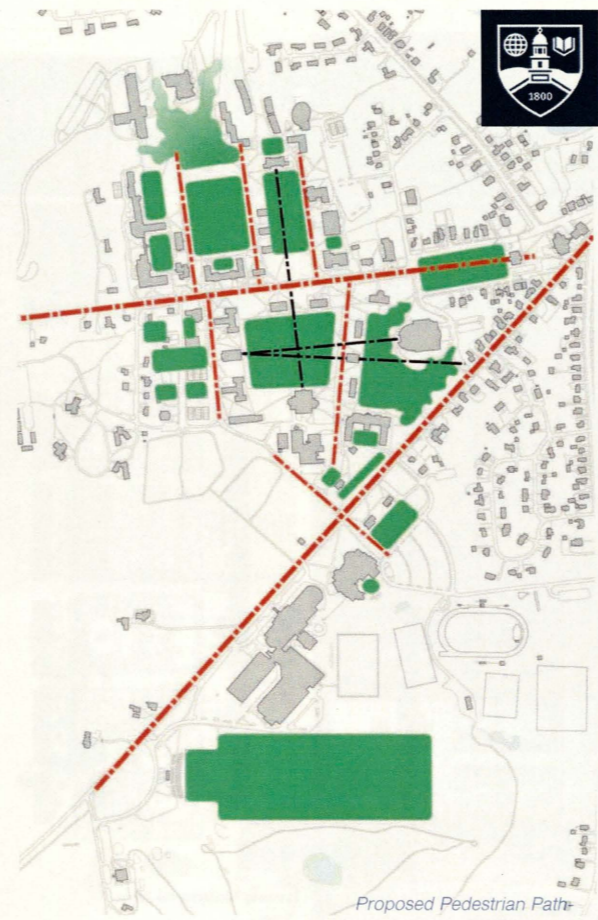
Bicentennial



Proposed Library

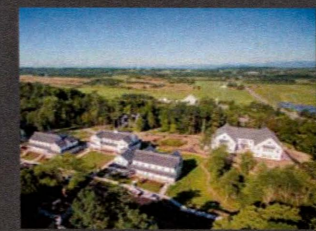
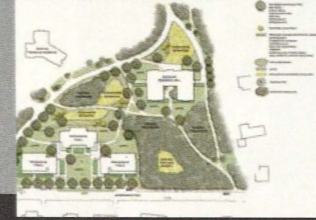
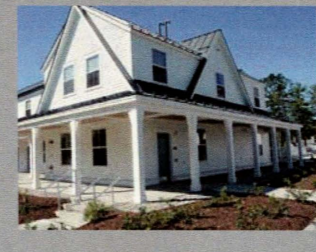


Proposed Main Quad



Proposed Pedestrian Paths

CASE STUDY | Ridgeline Residence Complex



PLANNING STRATEGY:

The Ridgeline Residence Complex is Middlebury's first new major residential construction since the completion of Atwater Residence Halls in 2004. Since that time, the student body exceeded campus housing capacity. To accommodate for such expansion, some students were placed in modular units while others moved off campus into town. The Ridgeline Complex now allows those living off campus to return to campus housing and for Middlebury College to remove its modular units.

Groundwork began in September 2015 with the removal of a structure and the installation of utility services—water, electricity, septic, telephone, and data—to the site. Also included was the construction of a storm water management system funneling runoff into two large on-site bio-retention basins.

The College worked with Kirchoff Campus Properties of Pleasant Valley, NY. The developer holds ownership of the buildings, while Middlebury assumes

PROGRAM:

The Ridgeline Residence complex, is comprised of four buildings and accommodates a total of 158 students. Three buildings are positioned on Adirondack View Road, each with four townhouse units. A fourth building off Ridgeline Road will offer suite-style apartments. Apartment have communal living spaces, full kitchens, laundry and bathrooms, and are fully furnished.

The four-acre grounds of the complex are landscaped. The residence buildings are air conditioned with functional windows welcoming natural mountain breeze. Touchpad door locks and free WIFI run throughout.

TOTAL PROJECT COST:

Not Available

AREA:

58,800 SQFT
4 AC Parcel

COMPLETION:

September 2016

ARCHITECT:

Kirchoff Campus Properties, Pleasant

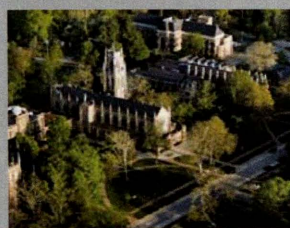
"Good campus design is the design of space – not buildings. Quadrangles, courts, streets and walks are the spaces that form our most enduring memories of campus life. Buildings shape these spaces, but their uses need to be free to change over time."

-Susan Personette, Assistant Vice President of Facilities

3.4 UNIVERSITY OF THE SOUTH, SEWANEE

UNIVERSITY OF THE SOUTH

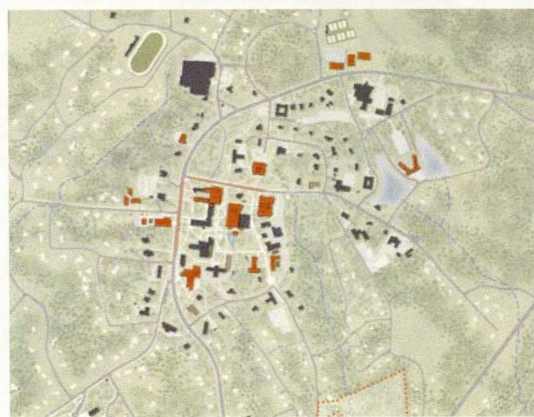
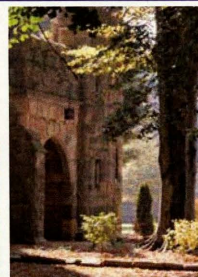
AT SEWANEE | SEWANEE, TN | 13,000 ACRES | ADOPTED 2011



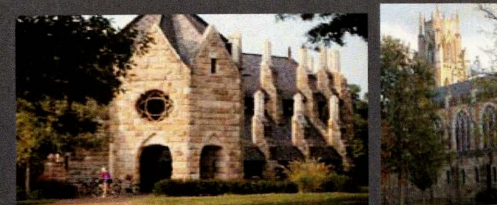
MASTER PLAN GOALS

- Support** the University's mission and strategic goals by enabling the physical resources to accommodate future needs. Allow the University's values to be conveyed by the quality and design of its facilities.
- Embrace** environmentally sustainable strategies holistically to create an exemplary sustainable campus. Preserve and celebrate the unique setting of the Domain. Feature the Domain as a natural laboratory for learning.
- Reinforce** vitality at the core of campus. Make innovative teaching and learning more visible. Make healthy activities visible and convenient.
- Preserve** campus core qualities while nurturing growth. Infuse technology and place-making while maintaining Sewanee's architectural integrity. Create spaces that encourage interaction.
- Strengthen** residential communities. Intentionally develop first year and sophomore offerings, while providing upper class students with more independent living arrangements.
- Revitalize** quality of existing facilities and optimize use of existing space.

YEAR ESTABLISHED: 1857
 CAMPUS: RURAL
 STUDENT BODY: 1,631
 MASTER PLAN: Hanbury Evans
 Wright Vlattas + Company



Illustrative Master

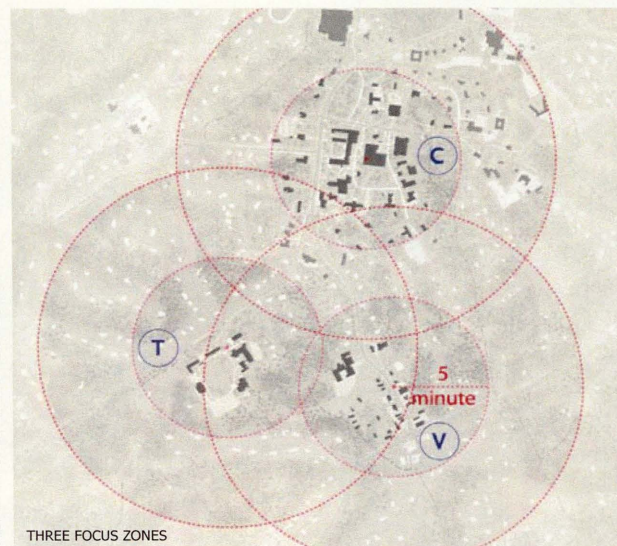


The campus master plan seeks to foster a physical environment to uphold Sewanee's emphasis on "development of the whole person through a liberal arts education of the highest quality ... while building a sense of community and lasting relationships."

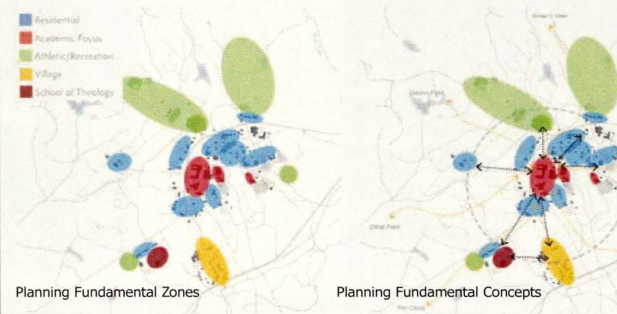


STRENGTHENING THE THREE FOCUS ZONES

- Future development should be focused, whenever possible, within three primary, walkable zones: The campus core, The School of Theology, and The Village. This will enhance the sense of vitality in each of these areas, limit development sprawl, preserve the Domain, take advantage of existing infrastructure, and encourage walking and cycling in lieu of automobile trips.
- Pedestrian and bicycle connections between these three areas should be enhanced.
- Improve signage and wayfinding between these three areas.
- Develop University Avenue to create a great street corridor by improving pedestrian paths, bicycle lanes, and planting street trees in strategic areas.
- Enhance trail access into the Domain.



THREE FOCUS ZONES



Planning Fundamental Zones

Planning Fundamental Concepts

• ZONE C: CAMPUS CORE



The plan reinforces the core campus area as the undergraduate academic nucleus.

• ZONE T: THEOLOGY SCHOOL

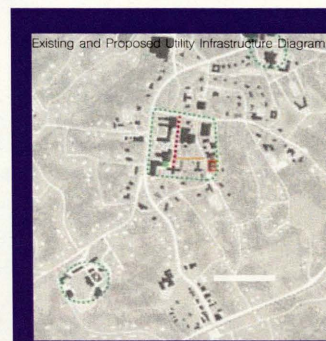


To create a campus for the School of Theology in relation to the Chapel of the Apostles, Quintard, and Gorgas.

• ZONE V: TOWN/VILLAGE



Proposes strategies to enhance this symbiotic relationship by locating appropriate support facilities in the downtown.

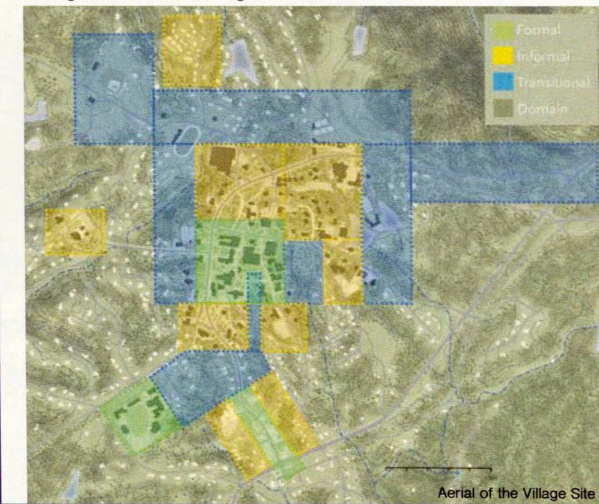


a. Demarcate portals into the Domain at the campus core
 b. The drainage shed of the developed campus lies at the top of three watershed basins with numerous streams penetrating into campus.
 c. The University Avenue, Georgia Avenue and Tennessee Avenue corridors are the primary streets connecting the campus communities.

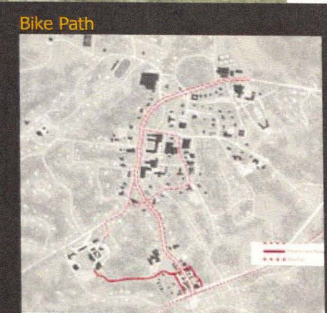
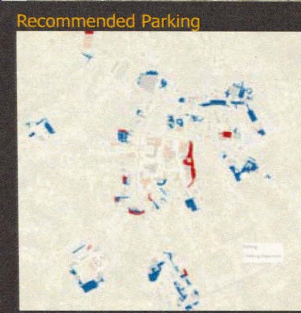
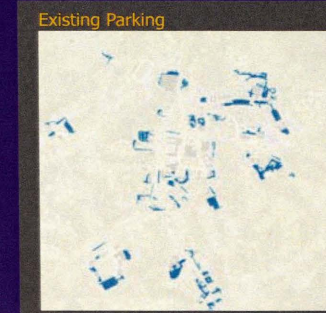
LANDSCAPE + INFRASTRUCTURE

The master plan proposes strategies to enhance The University of the South's connection with the natural landscape, creating a hierarchy of outdoor spaces while preserving and celebrating the Domain. The framework consists of three basic landscape typologies:

- FORMAL:**
 - Large lawn spaces
 - Low, non-focal point vegetation
 - Great streets define by intentional "streetscapes"
- INFORMAL:**
 - A community open space typically occurs at the front of buildings.
 - Vegetation consists of trees, shade, and limited color.
- TRANSITIONAL:**
 - Grade changes and watersheds play a primary and didactic role
 - Vegetation consists of important tree specimens, native ground cover, and agriculture



Aerial of the Village Site



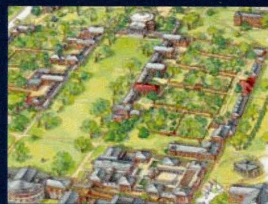
Existing Parking

Recommended Parking

Bike Path

3.5 UNIVERSITY OF VIRGINIA

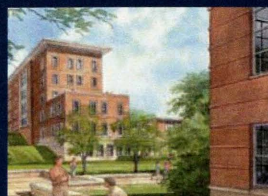
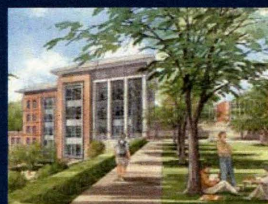
THE UNIVERSITY OF VIRGINIA



MASTER PLAN OBJECTIVES:

- "Planning for the Future of America"
- A multi-disciplinary collaboration
 - "Network of paths"
- Gathering places throughout campus
 - "Views and Vistas"

UNIVERSITY OF VIRGINIA



The Cornerstone Master Plan for the University of Virginia allows for an enhancement for the minds of the students; questioning and understanding the origins, and the "future of mankind".

The University of Virginia's particular placement of the campus and the development of Charlottesville creates open spaces, that are often mimicked.

Lightly tucked away in the small-city of Charlottesville, Virginia, UVA, is filled with a diverse student life that mimics its diverse campus.



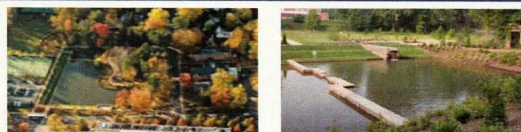
"This institution will be based on the illimitable freedom of the human mind.

For here we are not afraid to follow truth wherever it may lead, nor to

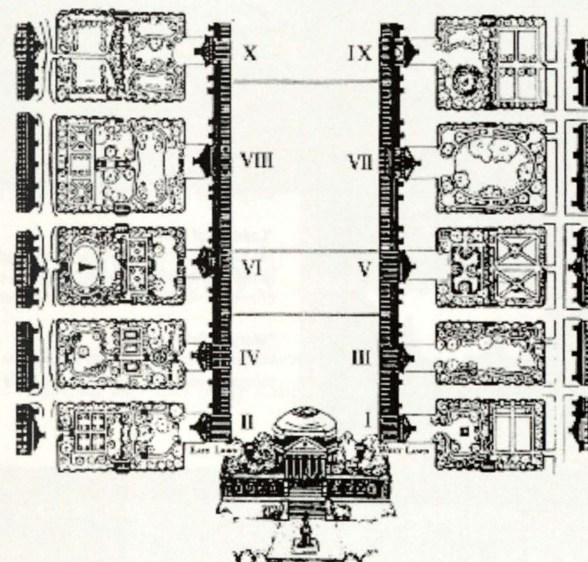
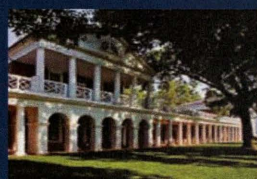
The initial development of The University of Virginia began with the infamous, well-studied "Rotunda" and the Academical Village. The simplicity and originality of the Lawn's architecture and landscape are seen from the south, looking north, to the Rotunda, as well as the north, looking to the south's extensive tiered pasture. The dense forms of the buildings line the void of the lawn, and are ultimately the most widely studied part of campus. The Academical Village is the basic foundation of Thomas Jefferson's plan, not only for the University of Virginia, but the future of

Cornerstone Master Plan Education

The Dell is an influential part of UVA. It provides a stormwater management solution and a botanical garden for Virginia



"For Thomas Jefferson, learning was an integral part of life. The "academical village" is based on the assumption that the life of the mind is a pursuit for all participants in the University, that learning is a lifelong and shared process, and that interaction between scholars and students enlivens



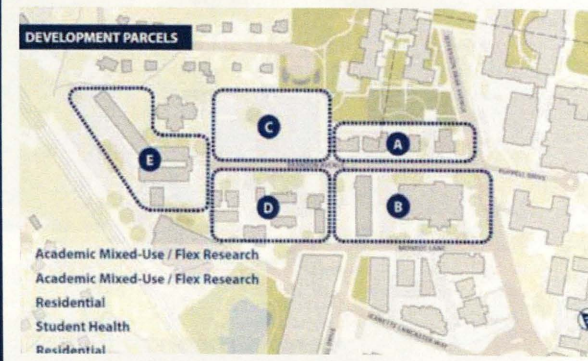
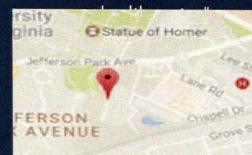
Cornerstone Master Plan Brandon Avenue Development

The Brandon Avenue Development is designed to increase the number of students for UVA, as well as to provide green spaces for students to "enhance their minds".

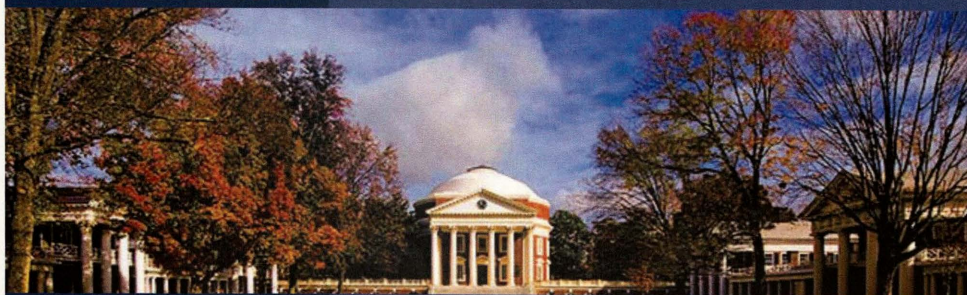
"The location of Brandon Avenue is really quite strategic [because of] the proximity to Grounds, to the Lawn, to the South Lawn, and it sort of serves as the link between the Health System and the rest of Grounds," said Leo Alvarez of Perkins + Will.

A new student center will also be provided with an estimated 75,000 square feet.

Alvarez said "The final phase of development would include 150,000 square feet of buildings for mixed-uses, including academic space. One of several buildings would be placed on the former site of the student



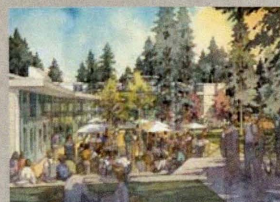
AN IDEA FOR ENTRY EXPERIENCE AT IVY AND EMMET STREET (LOOKING EAST)



3.6 UNIVERSITY OF CALIFORNIA, SANTA CRUZ

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

Santa Cruz, California | 2,000 Acres | Adopted 2005

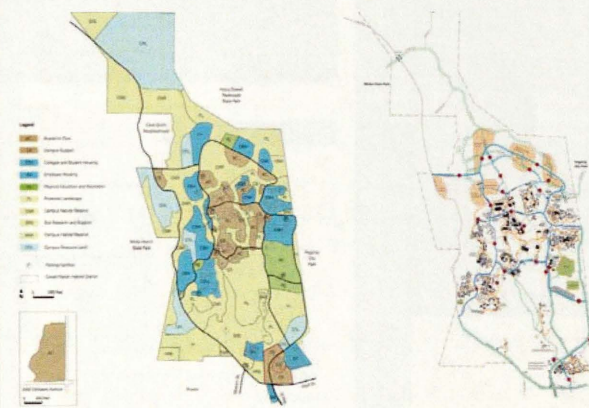


The Long-Range Development Plan 2005-2020 (LRDP) provides a comprehensive framework for the physical development and expansion of the UC Santa Cruz campus. The plan supports UCSC's academic, research, and public service mission while maintaining its strong traditions of environmental stewardship and sustainability as the campus will continue to maintain significant portions of natural areas and open space.

The plan continues concentrating academic facilities at the campus center surrounded by the residential colleges, other housing, recreation facilities, and support programs. Approximately 65 percent of new development will be carefully sited infill projects with the remainder allocated primarily to the north. The plan also promotes a walkable campus by strengthening pedestrian corridors, proposing pedestrian bridges to connect new and existing development, and by identifying locations for new consolidated parking facilities at the perimeter of the academic core.

LRDP OBJECTIVES

- Promote sustainable practices in campus development and operations.
- Respect the natural environment, preserve open space as much as possible, and integrate the built environment.
- Communicate and collaborate with the surrounding community and encourage economic health.
- Promote a walkable campus and discourage automobile use to and on the campus.
- Create an array of facilities and housing opportunities that enrich the quality of campus life for students and employees.

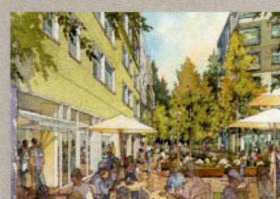
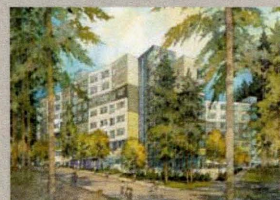


LRDP Land-Use Plan

"The long-range development plan is a physical development and land use plan to meet the academic and institutional objectives for a particular campus for high education."

INITIAL DEVELOPMENT

The original LRDP projected a 3-quarter-average enrollment of 21,000 students by 2020, but after conducting an Environmental Impact Report, the projected enrollment was decreased to 19,500 on-campus students. This growth represents an increase of approximately 5,100 students over 2003-04 total enrollment. The plan also includes a land-use map to guide capital construction and infrastructure development to accommodate a building program for campus growth. The campus's current buildings total approximately 4,825,000 gross square feet (GSF) while the additional space required to accommodate the expansion totals 3,175,000 GSF. However, as a long-range development plan, it does not commit the campus to carrying out development on any given timeline.



DESIGN PRINCIPLES | Five Unifying Concepts

MAJOR LANDSCAPE TYPES



The physical design framework for the campus is organized around a set of five unifying concepts that emanate from the distinctive structure of the UCSC campus and its historic pattern of development. These concepts are embodied in the LRDP's physical planning principles and land use plan and are at the heart of the planning and design guidelines. By articulating and reiterating these unifying concepts, the campus aims to create a cohesive campus design profoundly influenced by natural landscape, resulting in a built environment both beautiful and functional.

Major Landscape Types

Meadows, forests/forest edge, and ravines create the physical presence characteristic of the campus. In order to protect the integrity of each landscape type and to maintain and enhance the campus's ecological diversity, a different approach to development in each area is required.

BUILDING IN CLUSTERS



Core-College Configuration

The academic and service core of institutionally scaled buildings create the central campus and is surrounded on three sides by smaller scale groups of residential colleges and housing.

Building in Clusters

The tradition of developing residential colleges in distinct clusters has proved to be a successful and effective approach to building in UCSC's highly natural and forested environment.

"Ladder" of Roads

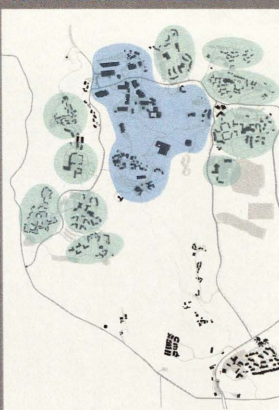
The roadway system is structured as a "ladder" stepping up the contours of the land and connecting the east and west colleges to emphasize transit, pedestrian, and bicycle use as driving to and on the campus is discouraged.

"Warped Grid" of Paths

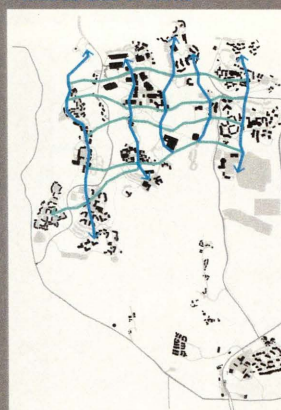
The pedestrian path system is organized in an overall "warped grid" pattern connecting the colleges to each other and to the core while responding sensitively to trees and contours.



CORE-CAMPUS CONFIGURATION



WARPED GRID OF PATHS



LADDERS OF ROADS



HOUSING DESIGN | Residential Colleges

RESIDENTIAL COLLEGE THEMES

- Cowell College (1965)
Imaging Justice Past and Present
- Stevenson College (1966)
Self and Society
- Crown College (1967)
Science, Technology, and Society
- Merrill College (1968)
Cultural Identities and Global Consciousness
- Porter College (1969)
Life is Short, Art Endures
- Kresge College (1971)
Power and Representation
- Oakes College (1972)
Communicating Diversity for a Just Society
- Rachel Carson College (1972)
Environment and Society
- College Nine (2000)
International and Global Perspectives
- College Ten (2002)
Social Justice and Community



UCSC Residential Colleges Map

HOUSING OPTIONS

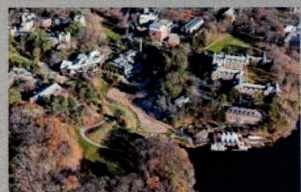
The undergraduate program, with only the partial exception of those majors run through the University's School of Engineering, is still based on the version of the "residential college system" outlined by Clark Kerr and Dean McHenry at the inception of their original plans for the campus. Upon admission, all undergraduate students have the opportunity to choose one of ten colleges whether they live in university housing or not.

In addition to housing students in small-scale residential communities, each college provides academic support, organizes student activities, and sponsors events that enhance the intellectual and social life of the campus. Each of the colleges has its own, distinctive architectural style and a resident faculty provost, who is the nominal head of his or her college. An incoming first-year student will take a mandatory "core course" within his or her respective college, with a curriculum and central theme unique to that college. Coursework, academic majors and general areas of study are not limited by college membership, although colleges host the offices of many academic departments.

3.7 WELLESLEY COLLEGE

WELLESLEY 2025

Wellesley, Massachusetts | Wellesley College | 500 Acres | Adopted 2013



GOALS & PRINCIPLES

- Enable academic initiatives and improvements to student life, and provide opportunities for collaboration and community-building at a variety of scales
- Meet current and anticipated program needs, with enough flexibility to accommodate evolution of programs and pedagogies
- Facilitate stewardship of Wellesley's rich inheritance of buildings and landscape, and — in particular — secure the longevity of its buildings
- Build on and enhance sustainability initiatives throughout campus
- Improve accessibility throughout campus
- Consider the campus as the embodiment of a forward-thinking college with a rich history and meaningful traditions, emphasizing both preservation and innovation

Since its founding in 1870, the landscape of Wellesley College has always been central to its identity. The campus includes a private lake, a golf club, groves of conifers and hardwoods, and paths through open meadows. Almost every window on campus opens to an inviting vista — through pine trees to the shores of Lake Waban, down sweeping lawns to century-old oaks with magnificent gnarled branches.

The plan "Wellesley 2025" is a major, multi-year project to renew and reinvigorate Wellesley's iconic and essential campus buildings. As Wellesley College faces the future and reimagines how they teach and learn, how they forge new interdisciplinary connections that transcend traditional boundaries, and how they strengthen bonds between Wellesley and the world, it is imperative that their campus enables their ambitions for the 21st-century liberal arts.



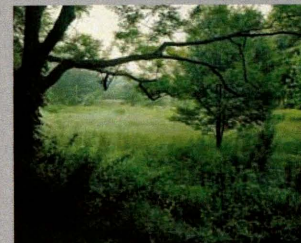
Key Plan

"This project is about more than just preserving what is great about our buildings and landscape. It is about how our beautiful historic buildings can be made to best support a liberal arts education in the 21st century." -H. Kim Bottomly, Fall 2012

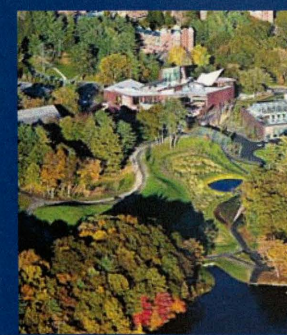
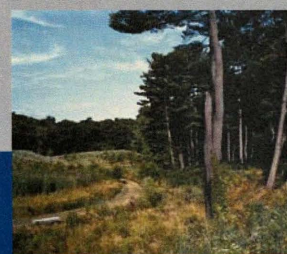
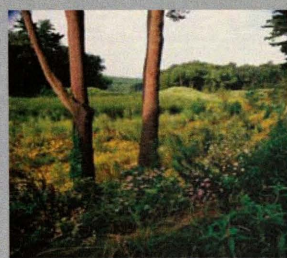
INITIAL DEVELOPMENT

In preparing for the consolidated 2025 plan, the College leadership asked five distinct working groups to reimagine the ways in which the College's facilities could support its initiatives ahead. Working groups were charged with envisioning programs in Arts and Media, the Humanities, Science and Environment, Student Residential Experience, and Wellness and Sports.

The purpose of the consolidated planning process was to create one, coherent, unified, and flexible plan. This would help to identify and address areas of overlap, and gaps between each of the five program plans. All plans reflect the institutional priorities and values as well as the College's ongoing commitments to sustainability.



CASE STUDY | MVVA's Alumnae Valley Restoration



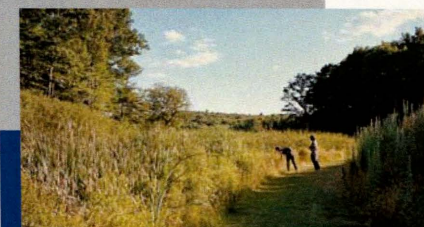
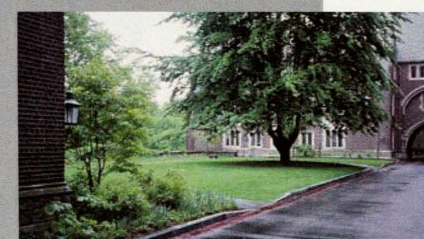
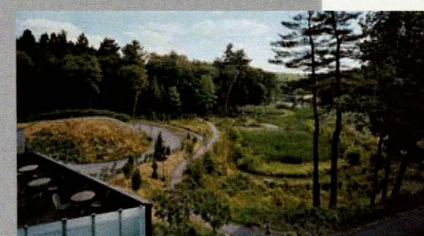
Wellesley's Mission

"To provide an excellent liberal arts education for women who will make a difference in the world."

1998 WELLESLEY COLLEGE MASTER PLAN

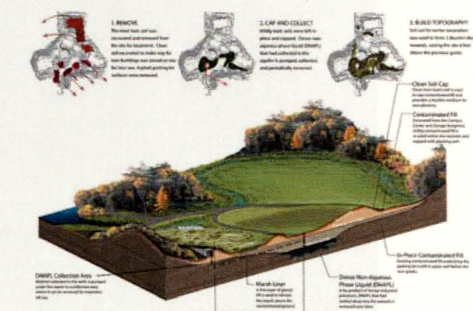
At the time of its original construction, the landscape-based design of Wellesley was seen as a challenge to the more homogenous quadrangle schemes favored at all-male schools like Harvard and Princeton. The 1998 Campus Master Plan sought to renew the historic campus landscape, restore pedestrian sovereignty, and respond to contemporary program needs. Key recommendations included moving cars from the lowland areas, the wet meadows, and the edges of byways and historic greens into a central parking facility associated with a new (and much needed) campus center.

The plan also recommended carefully siting new buildings, replanting a mature tree canopy, reintroducing meadow ecologies, pruning trees to reestablish corridors, restoring courtyards, expanding athletic fields, developing preservation options for adjoining land parcels, and re-evaluating maintenance procedures. Since the acceptance of the master plan in 1998, several implementation projects have been overseen by Michael Van Valkenburgh Associates, including the Alumnae Valley Landscape Restoration project.



Reconnecting Systems – Using Topography and Hydrology to Treat Surface Water

Through ecological restoration techniques and hydrological design, the valley was reinstated as part of the original glacial topography and ecology.



Brownfield Restoration – Efficiently Dealing with Toxicity

A variety of soil remediation techniques were used to treat the contaminated site.

ALUMNAE VALLEY RESTORATION (2001-2005)

When Frederick Law Olmsted Jr. surveyed Wellesley College in 1902, he emphatically recommended that the natural topography of glacial landforms, valley meadows, and native plant communities be preserved. But as the college developed, the valley became the site for the college physical plant, industrialized natural gas pumping, and eventually a parking lot over a toxic brownfield. The restored Alumnae Valley reclaims its place in the natural hydrological system that structures the Wellesley College campus. Topography is both a design solution and an experiential enhancement. Its dual role forms the foundation of a landscape that is at once willfully artificial and unabashedly picturesque.



Aerial view of main campus, surrounding neighborhoods, and pine forest.
Photo from EGSC.

4.0 LONG-TERM MASTER PLAN

As the most affordable institution within the state university system, East Georgia State College (EGSC) is primarily an access institution. As more students expect to go to college and learn about EGSC as a viable option, the number of students expected to enroll and the size of campus will grow.

The design team met with EGSC's president, professors, and stakeholders within the Swainsboro community to review the campus master plan and determine what future development was desired and likely to be implemented. The future academic program would need to double the square footage of academic buildings and triple the amount of student housing.

In determining the final long-term plan for the campus, the graduate studio followed a number of steps. First, every student developed preliminary concepts. From there, four were chosen to be presented to President Boehmer and other EGSC faculty who provided feedback on the designs. Afterwards, a composite plan was drafted that incorporated the best parts of each of the four designs.

13 Preliminary Concepts



4 Alternatives



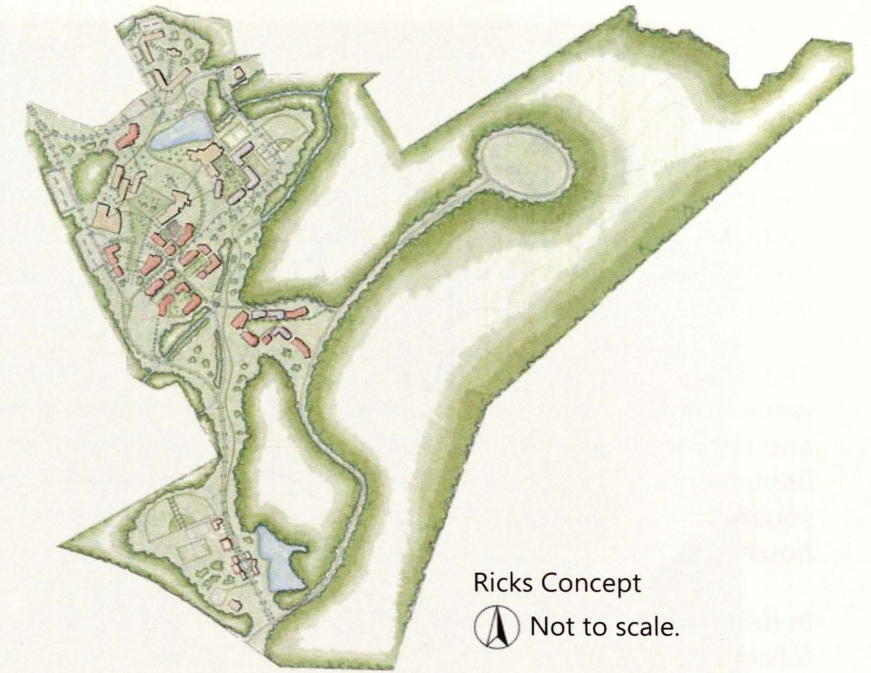
Proposed Master Plan

4.1 PRELIMINARY CONCEPTS

This spread illustrates a sample of the preliminary concepts created for the EGSC master plan. The four selected for refinement (on this page) were chosen because they best represented four distinct ideas or directions for the future development of the college. The following pages show how these four concepts were further cultivated and built upon in more detail.



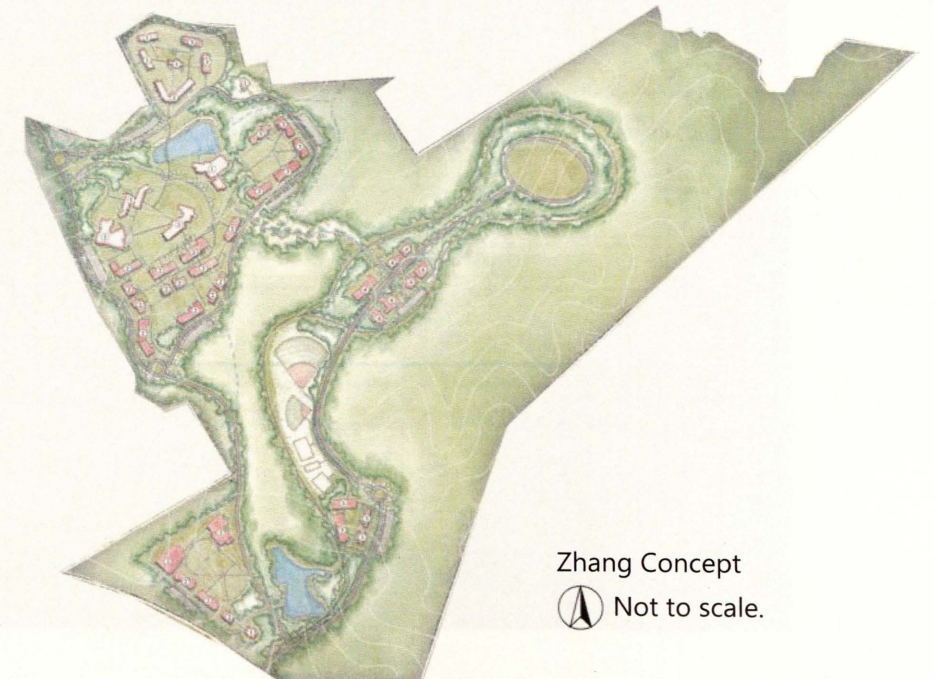
Schwartz Concept
ⓘ Not to scale.



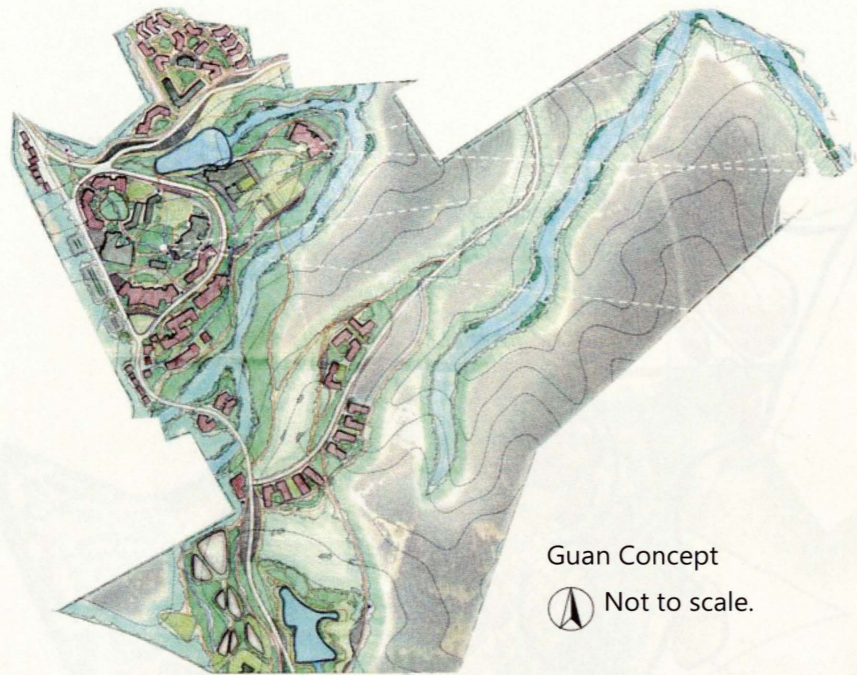
Ricks Concept
ⓘ Not to scale.



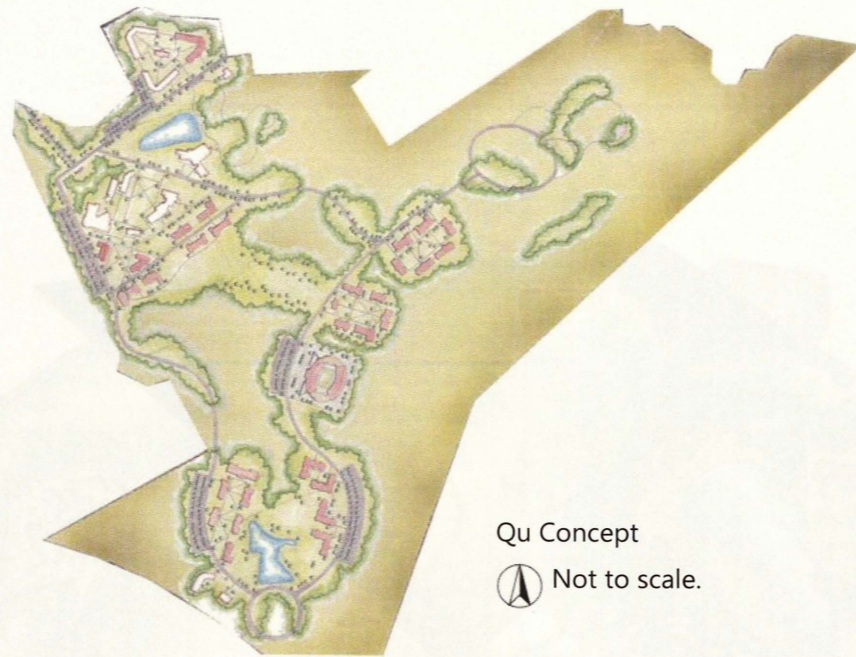
Quick Concept
ⓘ Not to scale.



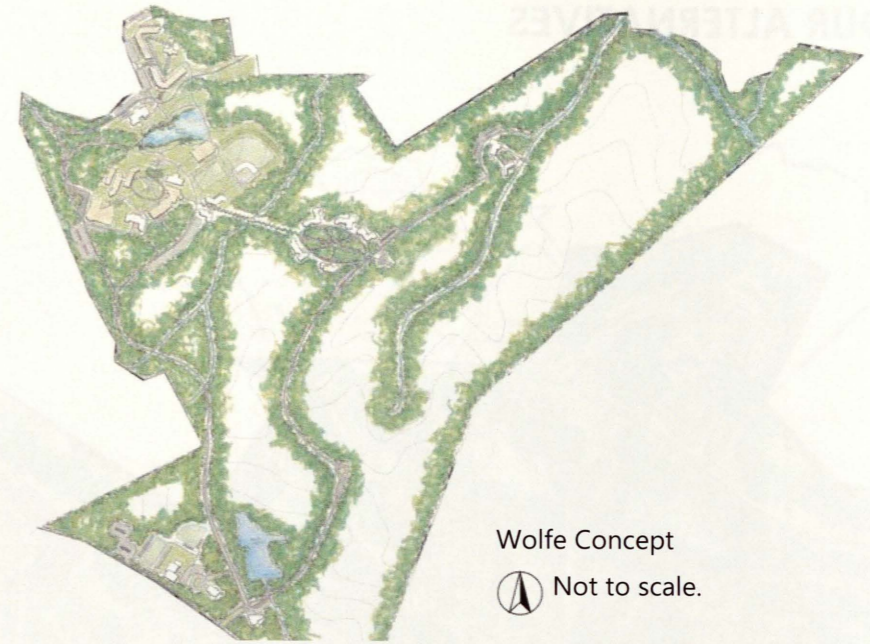
Zhang Concept
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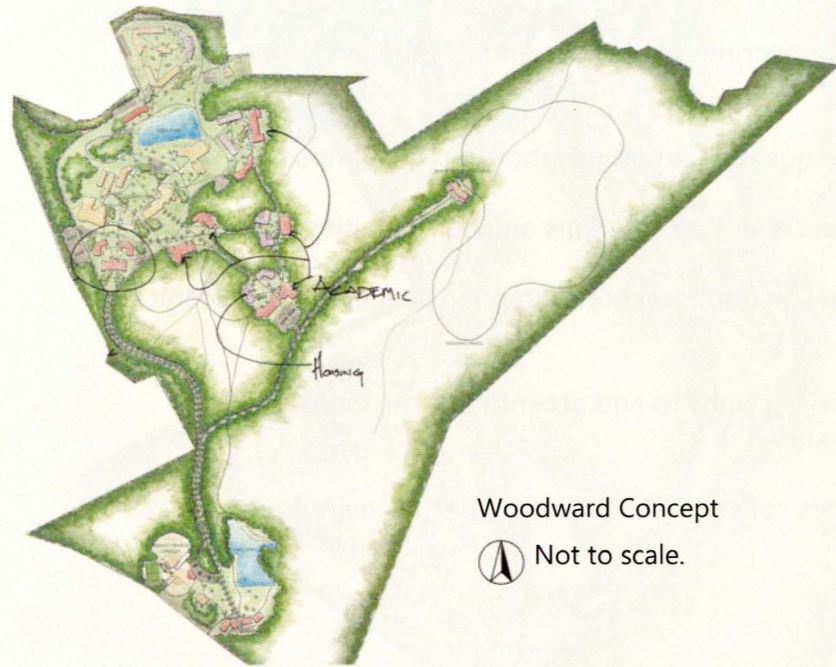
Guan Concept
Ⓜ Not to scale.



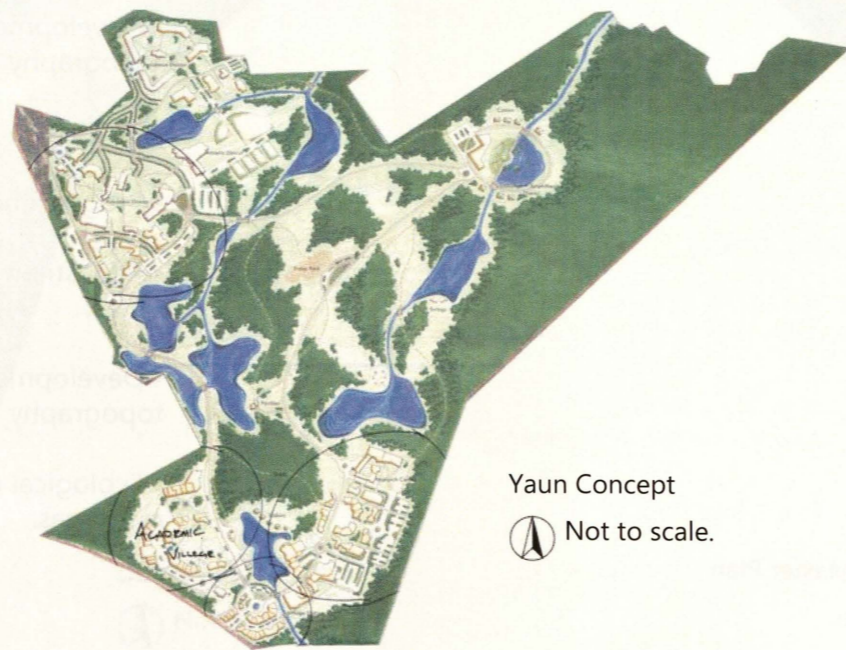
Qu Concept
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Wolfe Concept
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Woodward Concept
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Yaun Concept
Ⓜ Not to scale.



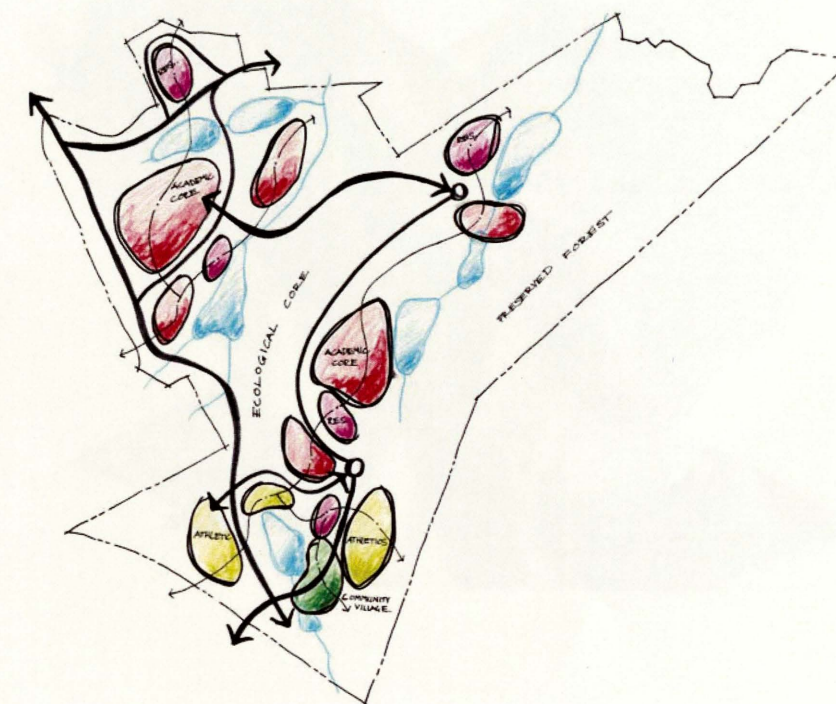
Valdes Concept
Ⓜ Not to scale.

4.2 FOUR ALTERNATIVES



String of Lakes Master Plan

ⓘ Not to scale.

**STRING OF LAKES CONCEPT**

- Development that responds to and accentuates the landscape and topography of the site.
- Honor the unique qualities & natural laboratory of campus.
- Programming that creates connections and communities.
- Pedestrian linkages that follow choreographed sequences past iconic vistas.
- Development that responds to and accentuates the landscape and topography of the site.
- Ecological corridors conserve the college's special environmental resources.



Density Master Plan
 Ⓜ Not to scale.



DENSITY CONCEPT

- Enhance the vibrancy of the campus by creating a dense academic core.
- Create an intimate setting, balancing the built environment with the natural.
- Clustering buildings into a core, allowing the pine forest to be preserved and used for recreation and conservation.
- Introduce a 'village' at the entrance of the campus, linking the college to the greater community.

4.2 FOUR ALTERNATIVES



Environmental Engagement Master Plan

⬆ Not to scale.

**ENVIRONMENTAL ENGAGEMENT CONCEPT**

- Improve and increase the number of recreational opportunities for campus residents and visitors.
- Restore wetlands and integrate natural systems into the campus landscape to foster education and engagement.
- Construct a series of vistas and viewpoints to enhance the idea of a 'Campus in the Pines.'
- Create unique housing opportunities that enrich the quality of campus life for students and employees.



Satellite Sites Master Plan
 ⚠ Not to scale.

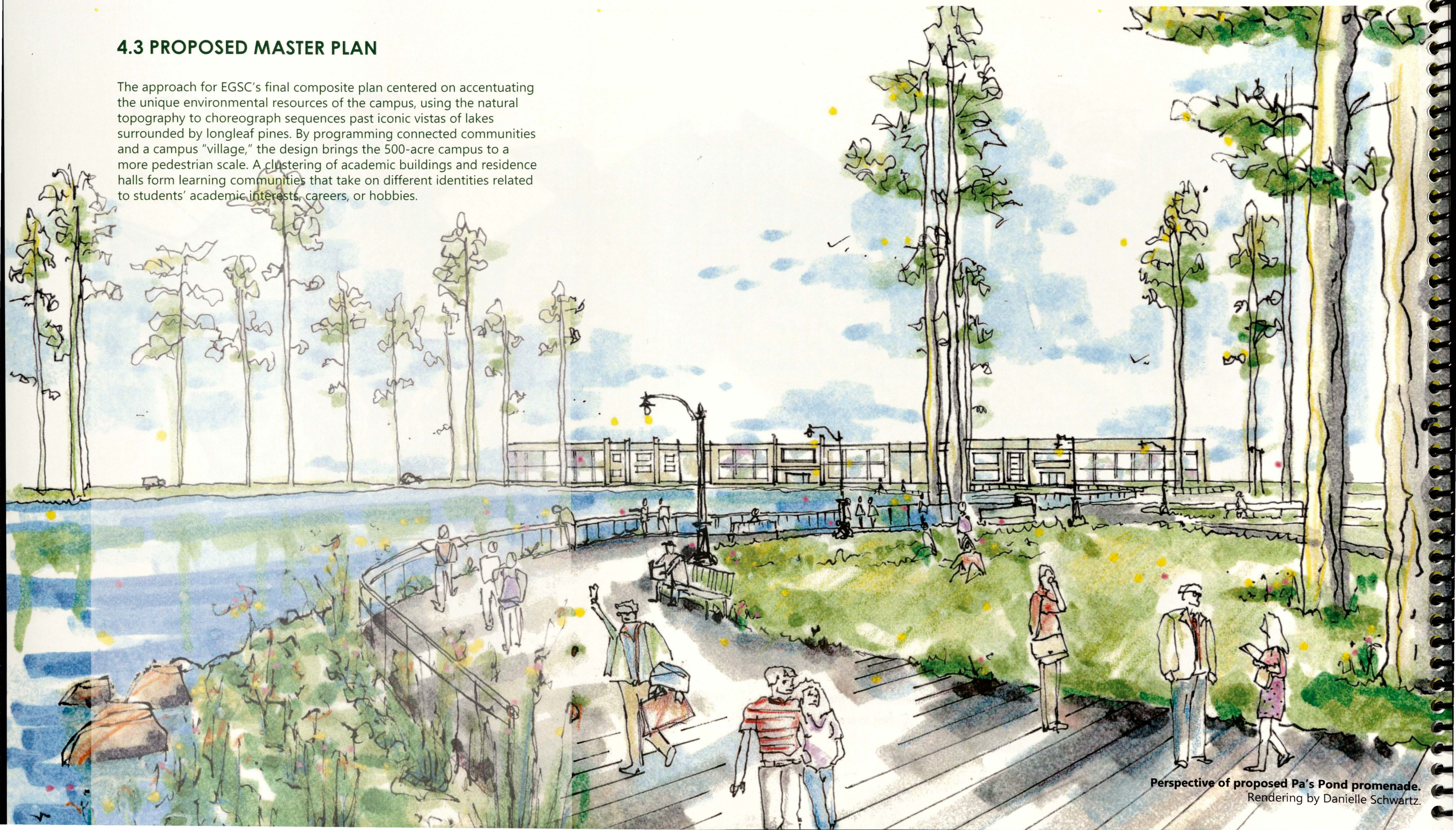


SATELLITE SITES CONCEPT

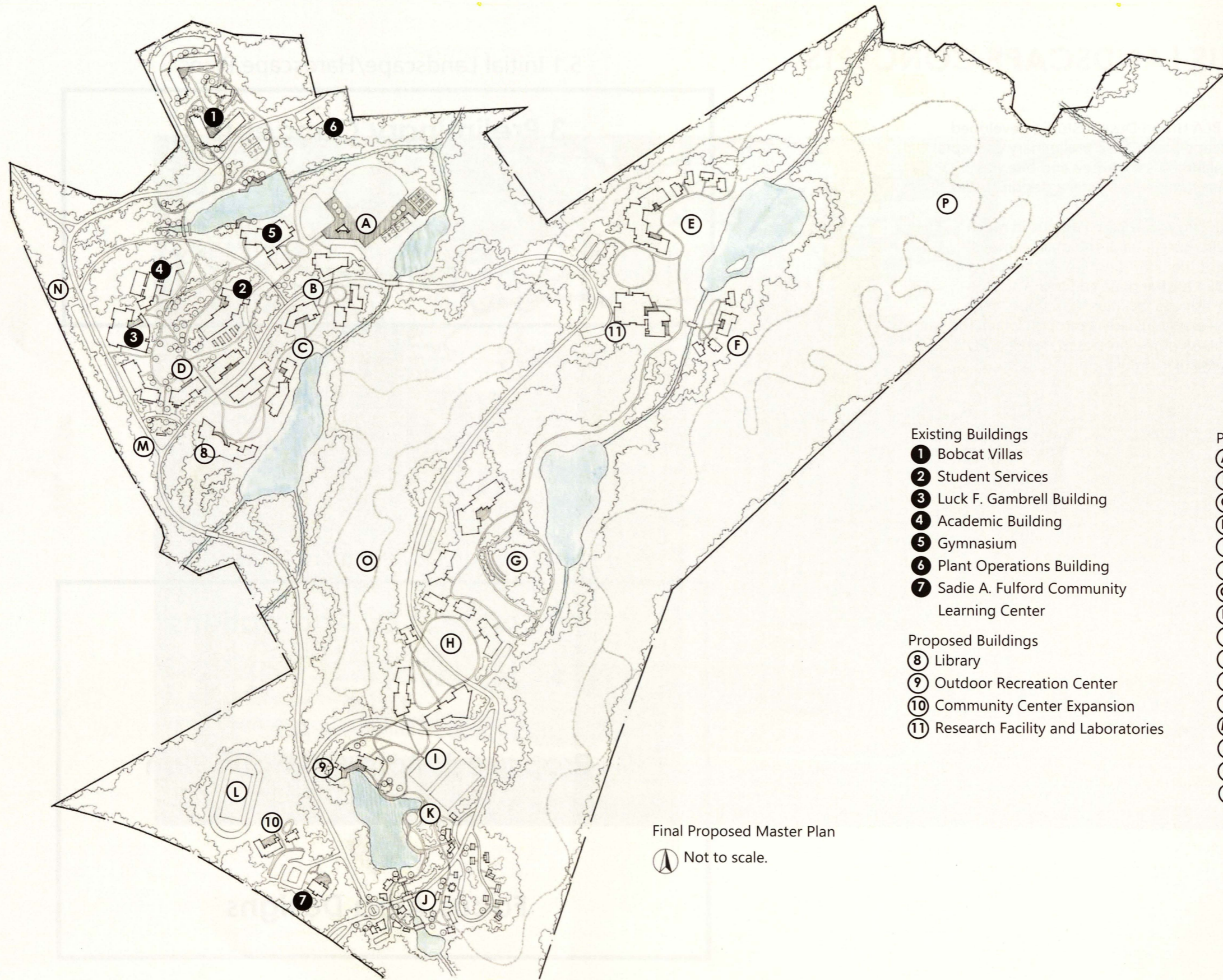
- Satellite sites of development that are connected throughout the campus provide a variety of types of open space between buildings.
- By having several pods of development, this plan seeks to balance active and passive space, nature and urban settings.
- A Bike Sharing project provides students with the ability to circumnavigate the campus and explore the conservation areas.

4.3 PROPOSED MASTER PLAN

The approach for EGSC's final composite plan centered on accentuating the unique environmental resources of the campus, using the natural topography to choreograph sequences past iconic vistas of lakes surrounded by longleaf pines. By programming connected communities and a campus "village," the design brings the 500-acre campus to a more pedestrian scale. A clustering of academic buildings and residence halls form learning communities that take on different identities related to students' academic interests, careers, or hobbies.



Perspective of proposed Pa's Pond promenade.
Rendering by Danielle Schwartz.



Existing Buildings

- 1 Bobcat Villas
- 2 Student Services
- 3 Luck F. Gambrell Building
- 4 Academic Building
- 5 Gymnasium
- 6 Plant Operations Building
- 7 Sadie A. Fulford Community Learning Center

Proposed Buildings

- 8 Library
- 9 Outdoor Recreation Center
- 10 Community Center Expansion
- 11 Research Facility and Laboratories

Proposed Design Elements

- A Sports Complex
- B Academic Village
- C Mixed Academic and Residence Halls
- D Academic Buildings
- E Eco-lodge
- F Eco Academic Village
- G Amphitheater
- H Mixed Academic and Residence Halls
- I Recreation Fields
- J Mixed-Use Commercial and Housing Village
- K Pa's Pond Promenade
- L Track
- M Entrance Signage
- N Parking Lot
- O Cross-country trails
- P Cross-country trails

Final Proposed Master Plan

▲ Not to scale.

5.0 MAIN CAMPUS LANDSCAPE CONCEPTS

In the Spring semester of 2017, the BLA Urban Design Studio developed concepts for a central campus landscape plan. Three preliminary concepts were reviewed by the EGSC master planning committee and one was chosen as a point of departure for the summer semester's design studio.

The BLA summer Capstone Studio looked at the core campus in much greater detail. After creating four more iterations of the main campus design inspired by 'Concept C,' one of the adaptations was chosen to be developed into the final proposed plan for the main campus. The plan suggests improvements to the quad, athletic facilities, Ezra Pond, and residence halls. These are a few of several focus areas through which the final design is shown in greater detail. All of the proposed development drawings integrate pedestrian and vehicular circulation.

5.1 Initial Landscape/Hardscape Plans

3 Preliminary Concepts



'Concept C'



5.2 Design Development Drawings

4 'Concept C' Adaptations



Proposed Main Campus Plan



Focus Area Designs



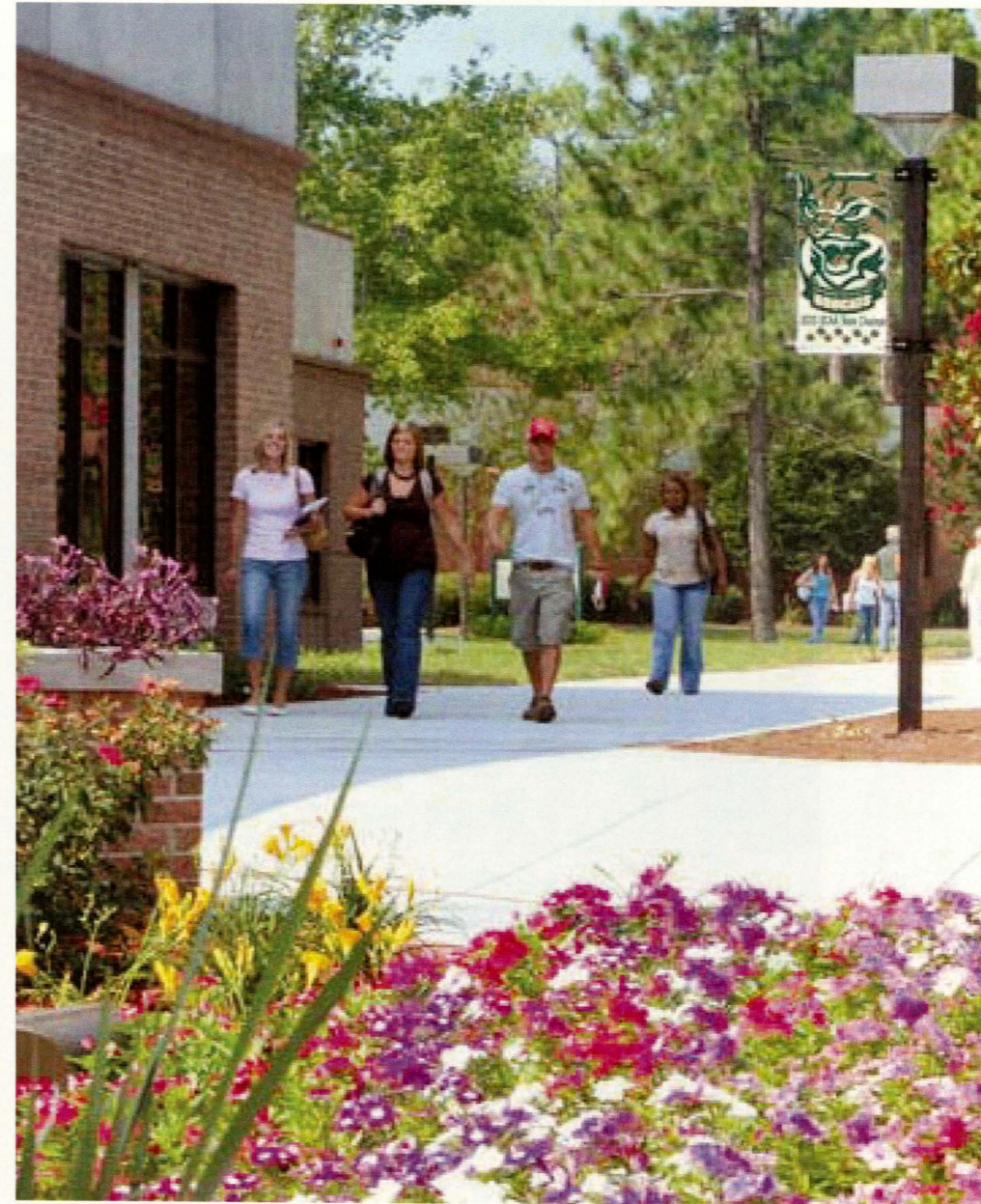
5.1 INITIAL LANDSCAPE/HARDSCAPE PLANS

After visiting EGSC, the BLA Urban Design Studio developed concepts for tree planting and sidewalks. Their aim was to provide shade, respite from heat, and to unify the quad. From the following three concepts, 'Concept C' was preferred because of its fountain and the radial organization of the central quad. From this design, the BLA Senior Capstone Studio further developed its defining features into the final proposed main campus plan.



Context map.

ⓘ Not to scale.





Main Campus Plan: Concept A

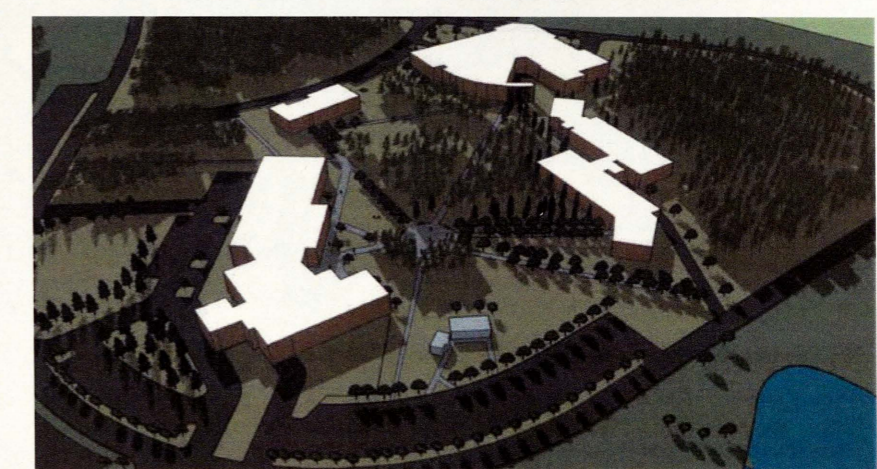
⊗ Not to scale.

CONCEPT STATEMENT

This concept centers around the idea that a campus should be a living, breathing organism just like the students that occupy it. A true Campus in the Pines, the center of campus combines the timelessness of a traditional campus quad with the unique ecological niche that the campus sits in. Large swathes of original forest have been left untouched to complement the newly planted areas and provide a continuous ecological corridor.



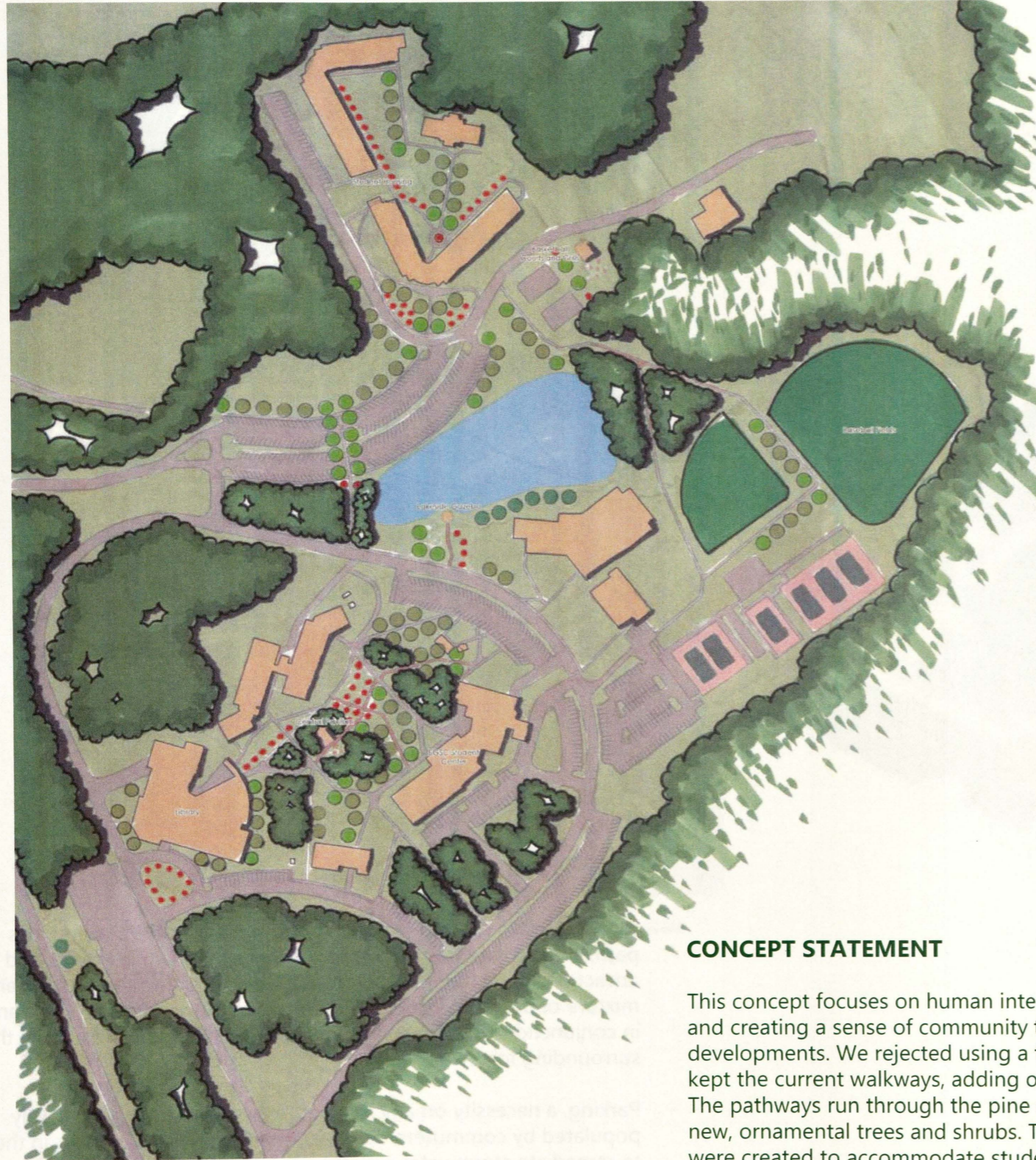
Scene 1



Scene 2

A central plaza located directly in front of the student center, has paths that radiate from its center towards the main buildings and attractions that students spend their time at. Lining these paths are a mixture of deciduous and evergreen trees, some of which are planted in conjunction with understory plants that mimic those found in the surrounding forest.

Parking, a necessity on any campus, especially one that is heavily populated by commuters, has been modified with bioswales in the lots to remediate stormwater runoff and reduce the amount of pollutants that reach Ezra Pond. Small plantings of ornamental trees and evergreen clusters further liven up the space.



Main Campus Plan: Concept B

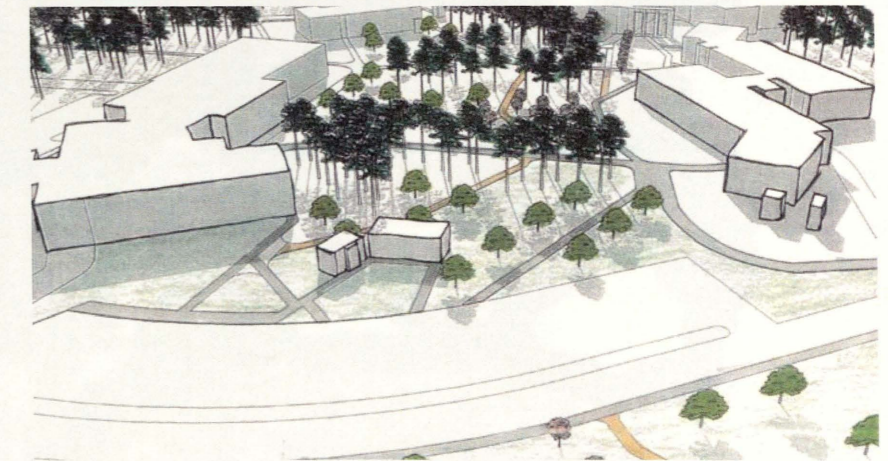
ⓘ Not to scale.

CONCEPT STATEMENT

This concept focuses on human interaction with the space and creating a sense of community through three key developments. We rejected using a formal form, and instead, kept the current walkways, adding ornate, flagstone paths. The pathways run through the pine canopy and are lined with new, ornamental trees and shrubs. These flagstone paths were created to accommodate students' needs by using their current desire paths, the shallow ruts in the grass created when one diverges from the designated pathway.



Scene 1

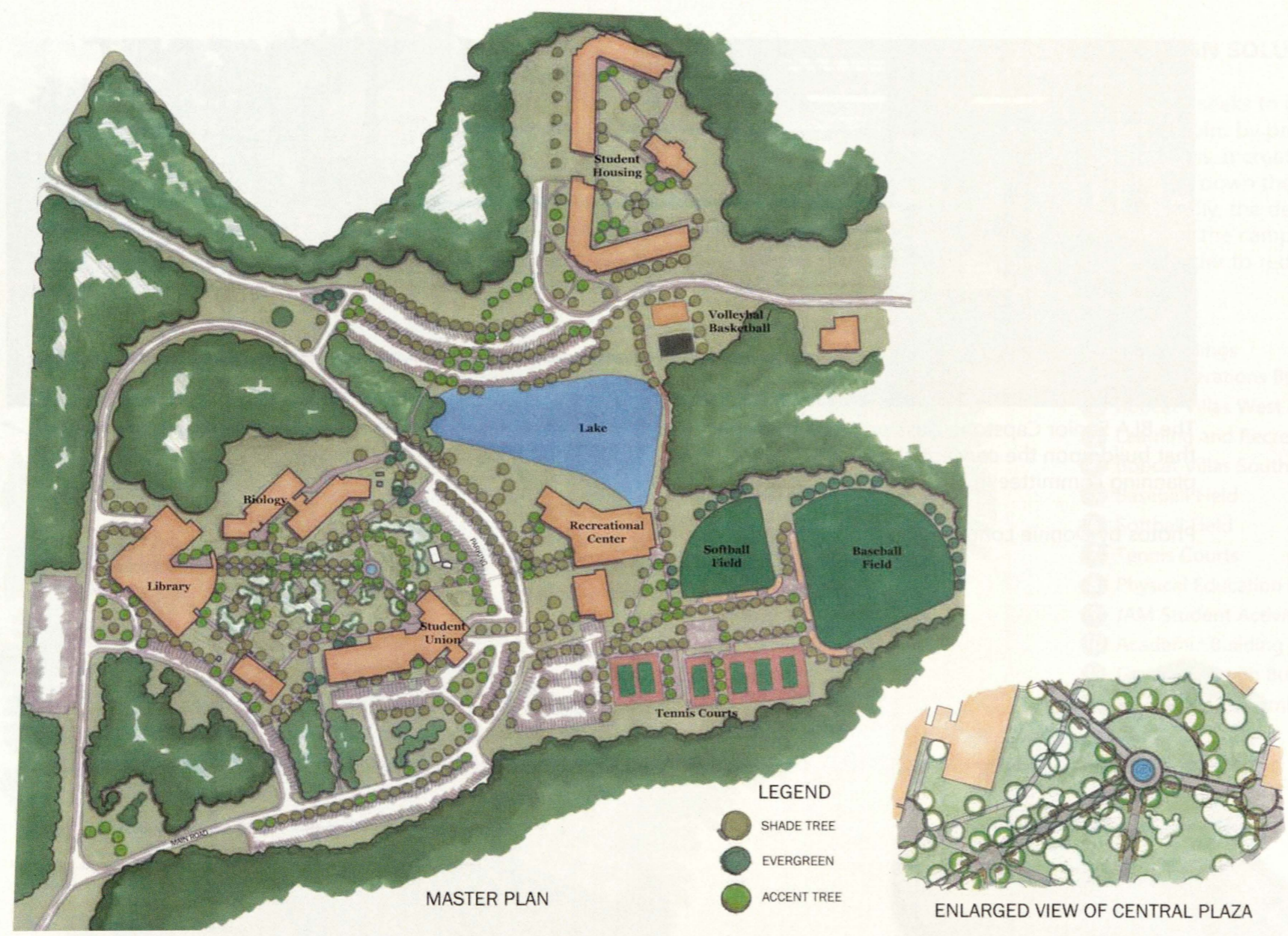


Scene 2

The first area of focus adds a pavilion and picnic benches under the existing pines in the center of campus. This structure can be used as a gathering space for friends and campus organizations.

Another space was created at the edge of Ezra Pond. A defining point on campus, it required a space nearby to allow students and guests to appreciate the full value that the water provides.

The last area we chose to develop was the basketball courts near the residence halls. We added shade trees to keep the courts cool and added a pavilion with an adjacent seating area so students could sit and watch and players could have a place to rest. In addition, we added grills that clubs could utilize.



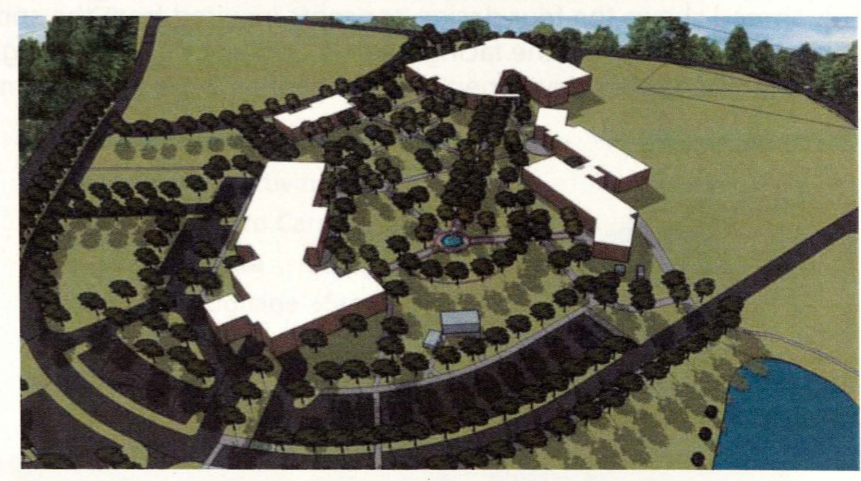
Main Campus Plan: Concept C
 ⚠ Not to scale.

CONCEPT STATEMENT

Inspired by the campus nickname, Campus in the Pines, this design works to reinforce the idea of nature throughout the campus. The campus is surrounded by tall pine trees and throughout the central quad the pine tree canopy lies above the buildings. This design incorporates this canopy while also establishing a lower tree line closer to the sidewalk and pedestrian areas, creating a cooler, more enjoyable environment. The system of pathways meets at central "nodes" and a larger meeting space with lots of seating and a grand water feature turns into the main focal point.



Scene 1



Scene 2

Redesigned walkways better fit the desire lines of students and create a more efficient network of sidewalks. The main pathways are tree-lined to create a more formal approach to the fountain with seating and low shrubs along the way. Other paths are planted more naturally to still mimic the idea of "Campus in the Pines," but present a more comfortable walk to class. Tree-lined paths are present throughout the campus to unify it and better connect different areas of campus.

Parking lots were made more pedestrian friendly by removing parking and emphasizing crosswalks with trees and shrubs. Overall, the focus is on creating a better connection of students and campus by providing walkways that give the most efficient route while still maintaining the "Campus in the Pines."

5.2 DESIGN DEVELOPMENT DRAWINGS

The summer Capstone Studio took 'Concept C' and worked on designing the central campus in greater detail. First, the students divided into four teams, each of which developed a more detailed design for the campus using 'Concept C' as a point of departure. At the end of June, students visited EGSC to create an as-built survey of the quad. Topography, sidewalks, existing trees, and drainage was recorded.

During the visit, all four adaptations of 'Concept C' were presented to President Boehmer and the planning committee, from which a preferred Concept C.4 was chosen by EGSC. Concept C.4 was overlaid on the as-built survey and adjustments were made to all facets of the plan to keep existing trees and align sidewalks to existing entrances.

4 'CONCEPT C' ADAPTATIONS

This spread shows the four design concepts inspired from the spring studio's Concept C. On the facing page is Concept C.4 - the design chosen to be further developed into the final proposed main campus plan.




The BLA Senior Capstone class presents four concepts that build upon the concept chosen by the EGSC planning committee in the spring.

Photos by Donnie Longenecker.




Students survey the main campus quad under the guidance of Donnie Longenecker.




Concept C.1
 Not to scale.



Concept C.2
 Not to scale.



Concept C.3
 Not to scale.



Concept C.4
 ⓐ Not to scale.

KEY DESIGN SOLUTIONS

This design seeks to create a main campus entrance and focal point by providing clear paths along a radiating axis. It creates a series of gathering spaces that extend down the main quad for students and events. Finally, the design provides ample tree cover throughout the campus and water features in key nodes in order to reduce heat.

Existing Buildings

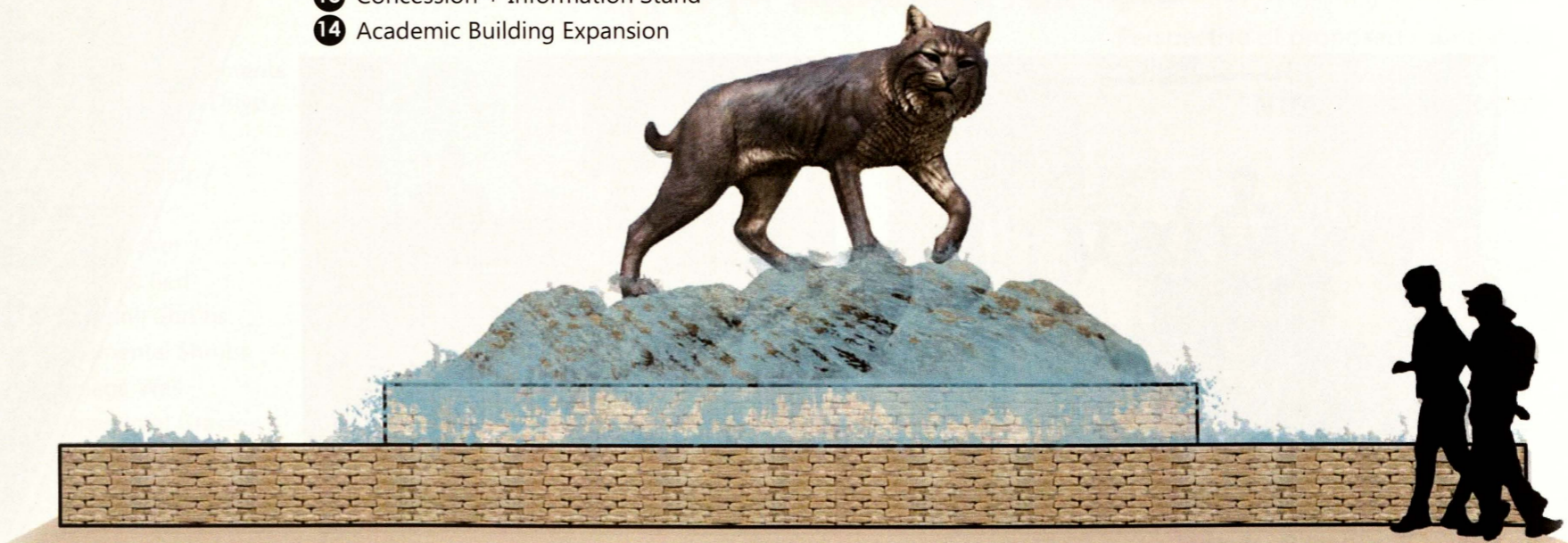
- ① Plant Operations Building
- ② Bobcat Villas West
- ③ Learning and Recreation Center
- ④ Bobcat Villas South
- ⑤ Baseball Field
- ⑥ Softball Field
- ⑦ Tennis Courts
- ⑧ Physical Education Building
- ⑨ JAM Student Activities Center
- ⑩ Academic Building
- ⑪ George L. Smith Building
- ⑫ Luck Flanders Gambrell Building

Proposed Buildings

- ⑬ Concession + Information Stand
- ⑭ Academic Building Expansion

Proposed Design Elements

- Ⓐ Basketball + Volleyball Courts
- Ⓑ Grilling Area
- Ⓒ Lake Overlook
- Ⓓ Ezra Pond Restabilization
- Ⓔ Ezra Pond Rain Garden
- Ⓕ Water Wall + Reflecting Pool
- Ⓖ Tailgate Area
- Ⓗ Amphitheater
- Ⓘ Bobcat Fountain
- Ⓝ Student Activities Plaza
- Ⓚ Gateway to Campus
- Ⓛ Entry Plaza
- Ⓜ Entry Signage + Structure



Ⓘ Bobcat Fountain

PROPOSED MAIN CAMPUS PLAN

The final proposed plan builds upon Concept C.4 by adding student and faculty housing and flushing out the design details of Ezra Pond, the Bobcat Sports Complex, and the main quad.

Existing Buildings

- 1 Plant Operations Building
- 2 Bobcat Villas West
- 3 Learning and Recreation Center
- 4 Bobcat Villas South
- 5 Baseball Field
- 6 Softball Field
- 7 Tennis Courts
- 8 Physical Education Building
- 9 JAM Student Activities Center
- 10 Academic Building
- 11 George L. Smith Building
- 12 Luck Flanders Gambrell Building
- 13 Campus Police Headquarters

Proposed Buildings

- 14 Concession + Information Stand
- 15 Academic Building Expansion
- 16 Proposed Student Housing
- 17 Cross Country Pavilion

Proposed Design Elements

- A Basketball + Volleyball Courts
- B Grilling Area
- C Outdoor Classroom
- D Ezra Pond Wetland Restoration
- E Ezra Pond
- F Water Wall + Reflecting Pool
- G Tailgate Area
- H Amphitheater
- I Bobcat Fountain
- J Student Activities Plaza
- K Wildflower Bee Habitat
- L Paw Fountain
- M Entry Plaza
- N Roundabout + Tree Sculpture



Final Proposed Main Campus Plan

⬆ Not to scale.



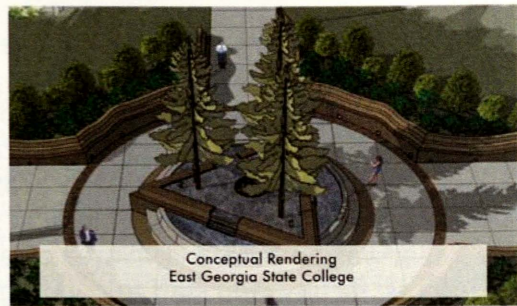
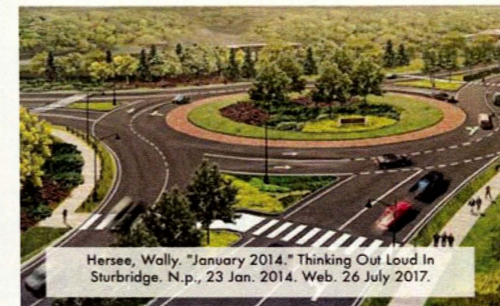
The BLA Senior Capstone class pose with their professor, Donnie Longenecker, Daniel Sniff, and EGSC's President Boehmer.



Student, Tyler Barron, presents the overall design for the main campus plan.

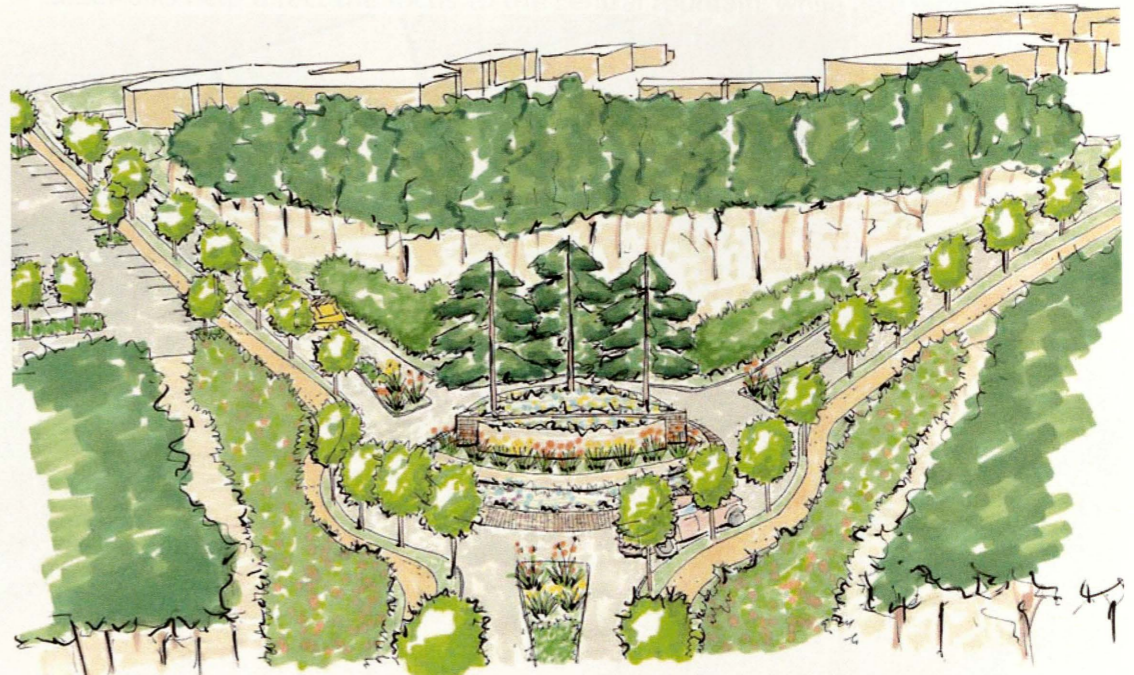
Photos by Donnie Longenecker.

Character Images



- Proposed Design Elements
- (A) Madison Dixon Drive
 - (B) College Circle
 - (C) Existing Canopy
 - (D) Brick Detail
 - (E) Groundcover
 - (F) Perennial Bed
 - (G) Flowering Shrubs
 - (H) Ornamental Shrubs
 - (I) Signage Wall
 - (J) Ornamental Grasses
 - (K) Tree Sculpture

Entry Roundabout Plan
 ⬆ Not to scale.



Perspective of proposed roundabout.

ENTRY ROUNDABOUT

The roundabout places a focal point at the termination of Madison Dixon Drive. It also creates a secondary entry for the campus. A tree sculpture sits in the center atop a circular signage wall. The sign wall announces the arrival to the main campus and also contains directional signage to help route students and visitors to the right location. These elements are surrounded by a mix of perennials, groundcover, ornamental grasses, and flowering trees.



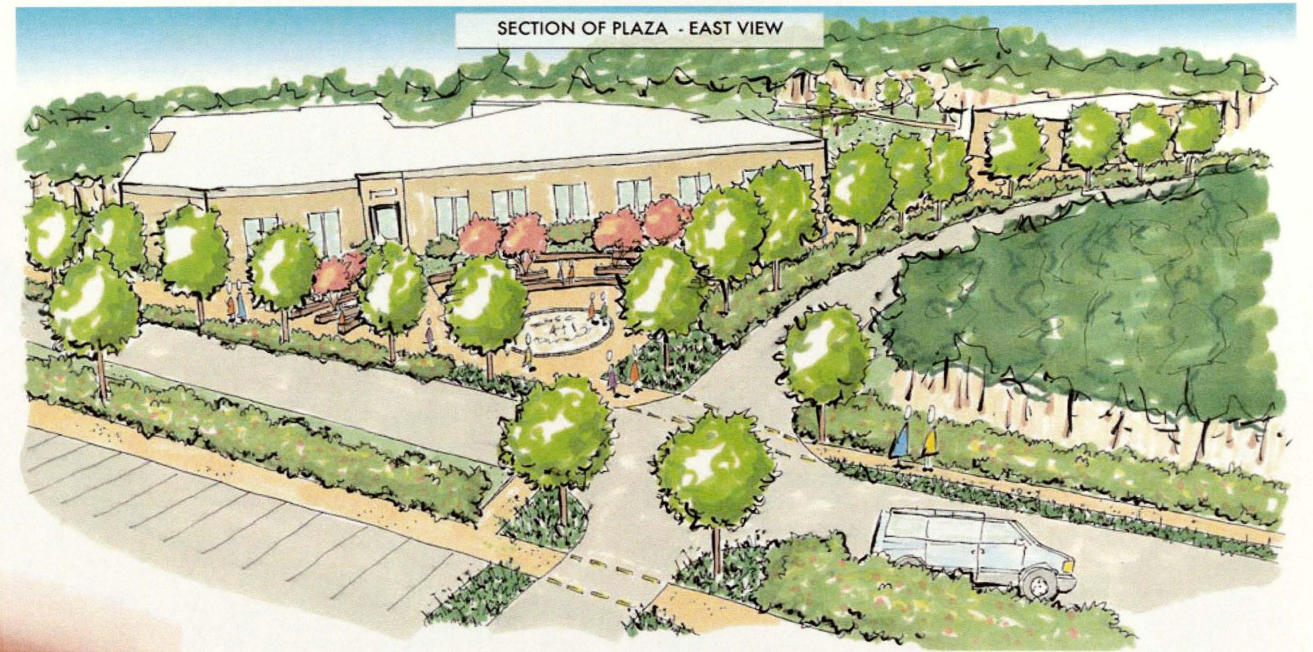
Context Map

ACADEMIC ENTRY PLAZA

The academic entry plaza creates a sense of arrival for the Luck Flanders Gambrell building. The plaza is created from concrete pavers with a custom inlay of the EGSC seal. Shade and ornamental trees border the plaza on all sides to create some shade and respite from the heat. These trees also work to soften the Gambrell building's stark brick facade. An 18" seat wall and small lawn area create an opportunity for students, faculty, and staff to congregate.



Context Map

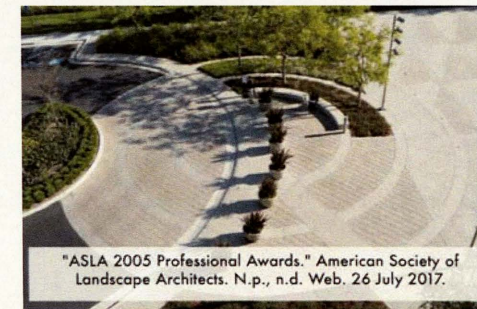


SECTION OF PLAZA - EAST VIEW



- Existing Building
- 1 Luck Flanders Gambrell Building
- Proposed Design Elements
- (A) Expanded Parking
- (B) Drive
- (C) Sidewalk
- (D) Existing Canopy
- (E) Shade Tree
- (F) Shrub Mass
- (G) Perennial Beds
- (H) Seat Wall
- (I) Ornamental Tree
- (J) Raised Planter

Character Images



"ASLA 2005 Professional Awards." American Society of Landscape Architects. N.p., n.d. Web. 26 July 2017.



"Columbus Hall at Columbus State Community College." Columbus Hall at Columbus State Community College | EDGE.

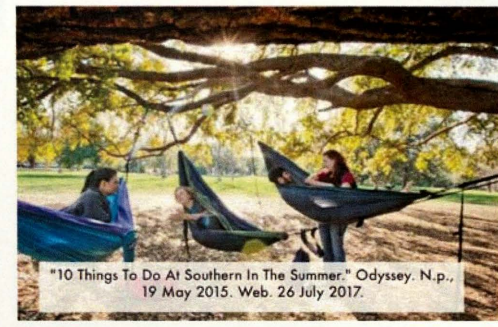
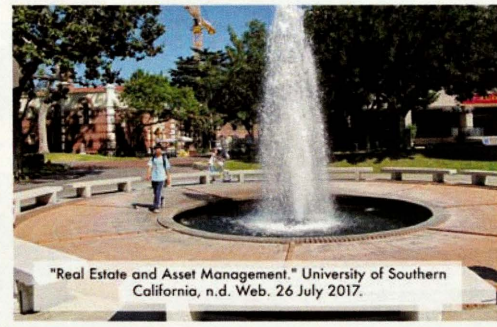
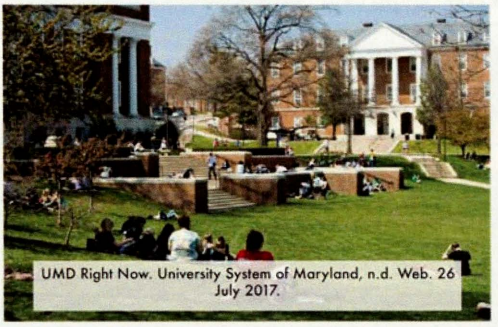


"ASLA 2005 Professional Awards." American Society of Landscape Architects. N.p., n.d. Web. 26 July 2017.

Academic Entry Plaza Plan

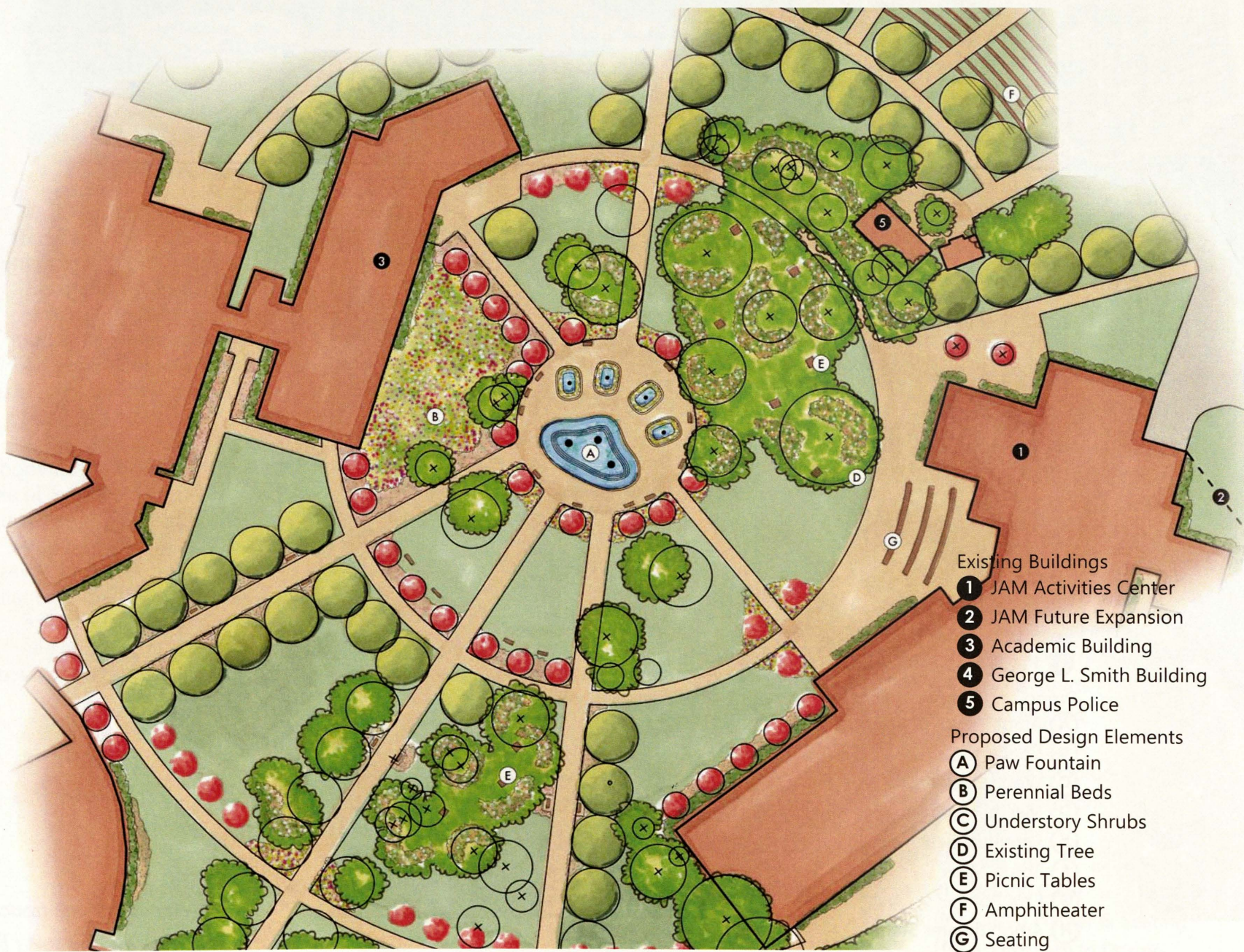
⬆ Not to scale.

Character Images



CENTRAL QUAD

Currently, EGSC's main quad is a disparate mix of buildings, trees, and sidewalks. Faculty, staff, and students all agreed that this area needed monumentation, shade from the sun, and some sort of unifying element. Our design attempts to address all these concerns. First, a large fountain in the shape of a bobcat paw is the central focus. It provides a monumental element for the quad. Also, the fountain can serve as a bit of an air conditioner for the quad, helping to reduce ambient temperatures. A new radial pattern of sidewalks work to create a unifying geometry for the space. Sidewalks help direct the focus to the central fountain, while also working to blend the various building entrances into a unified whole.



Central Quad Plan

⬆ Not to scale.



This radial pattern creates plenty of opportunities for smaller and more intimate gathering places for the university community. Great care was taken to not disturb the existing tree canopy. Additional trees and shrubs were placed throughout to provide shade and create some outdoor "rooms" in the quad. A large perennial bed adjacent to the academic building serves as an additional pollinator garden. Recently, EGSC has become accredited as a Bee Campus through the Bee City USA nonprofit organization. As an educational institution dedicated to ensuring a better future for pollinators, the design of the central quad supports and reinforces EGSC's commitment to maintain its unique environmental ecosystems.

EZRA POND

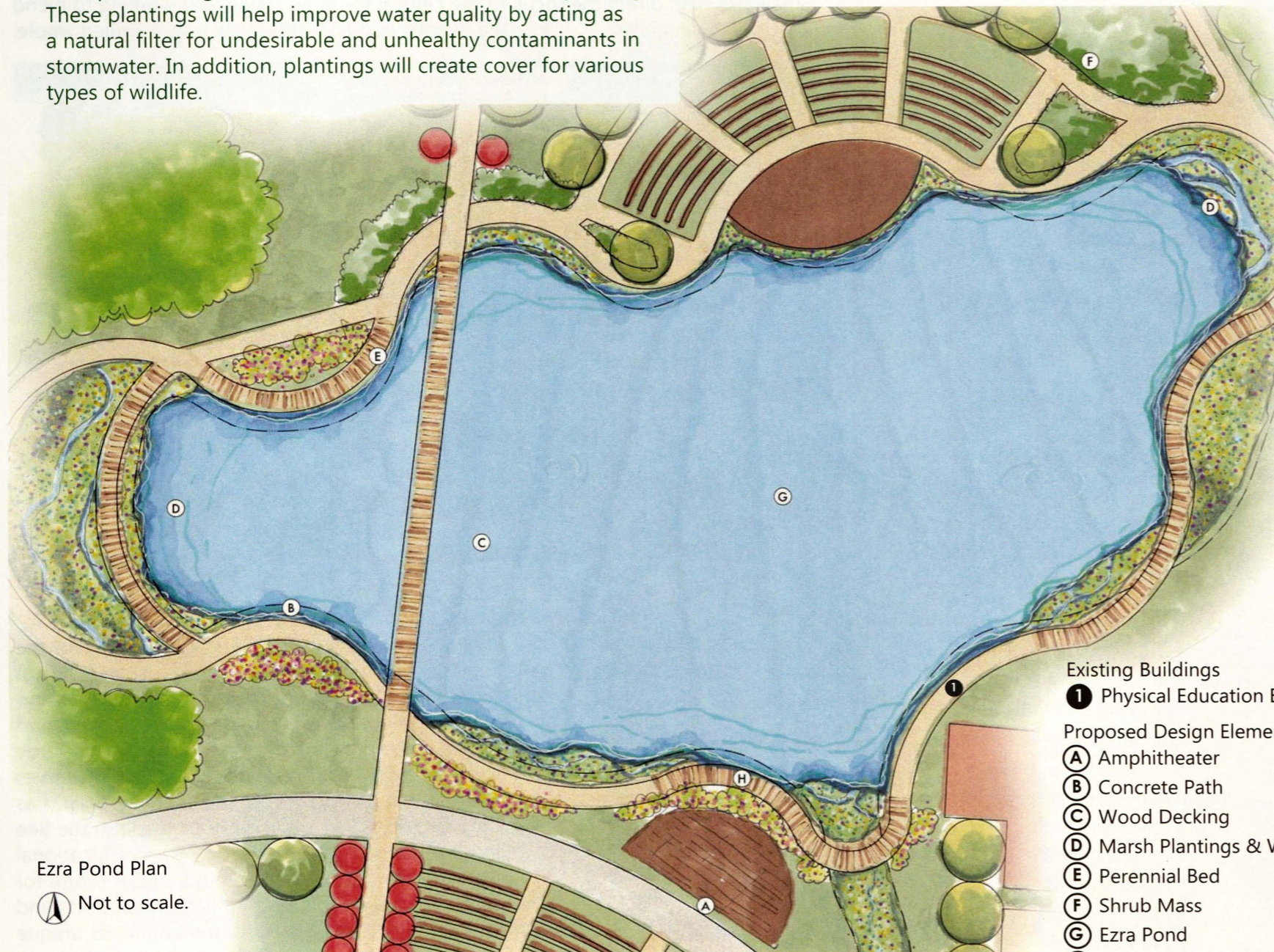
Currently, Ezra Pond serves as a stormwater collection area for central campus. Interviews and analysis demonstrated a need to re-imagine Ezra Pond as a visual asset to the campus. Old Fourth Ward Park in Atlanta served as the inspiration for the redesign. This project transformed an urban stormwater pond into an amenity for residents and habitat for wildlife. We have suggested much the same for Ezra Pond. First, the shoreline has been reshaped and regraded to create shelves for wetland plantings. These plantings will help improve water quality by acting as a natural filter for undesirable and unhealthy contaminants in stormwater. In addition, plantings will create cover for various types of wildlife.



Context Map



PERSPECTIVE OF LAKE - SOUTH VIEW

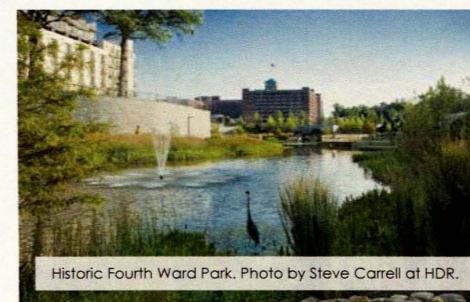


Ezra Pond Plan

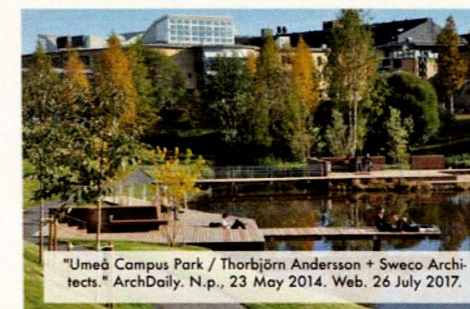
ⓘ Not to scale.

- Existing Buildings
- ❶ Physical Education Building
- Proposed Design Elements
- Ⓐ Amphitheater
- Ⓑ Concrete Path
- Ⓒ Wood Decking
- Ⓓ Marsh Plantings & Water Filtration
- Ⓔ Perennial Bed
- Ⓕ Shrub Mass
- Ⓖ Ezra Pond
- Ⓗ Amphitheater Stage

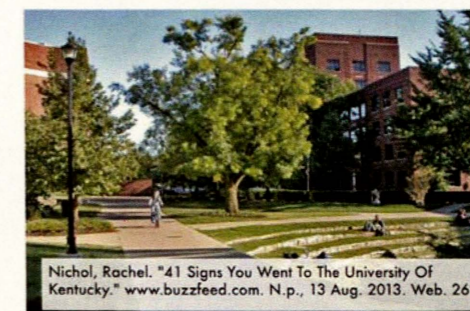
Character Images



Historic Fourth Ward Park. Photo by Steve Carrell at HDR.



"Umeå Campus Park / Thorbjörn Andersson + Sweco Architects." ArchDaily. N.p., 23 May 2014. Web. 26 July 2017.

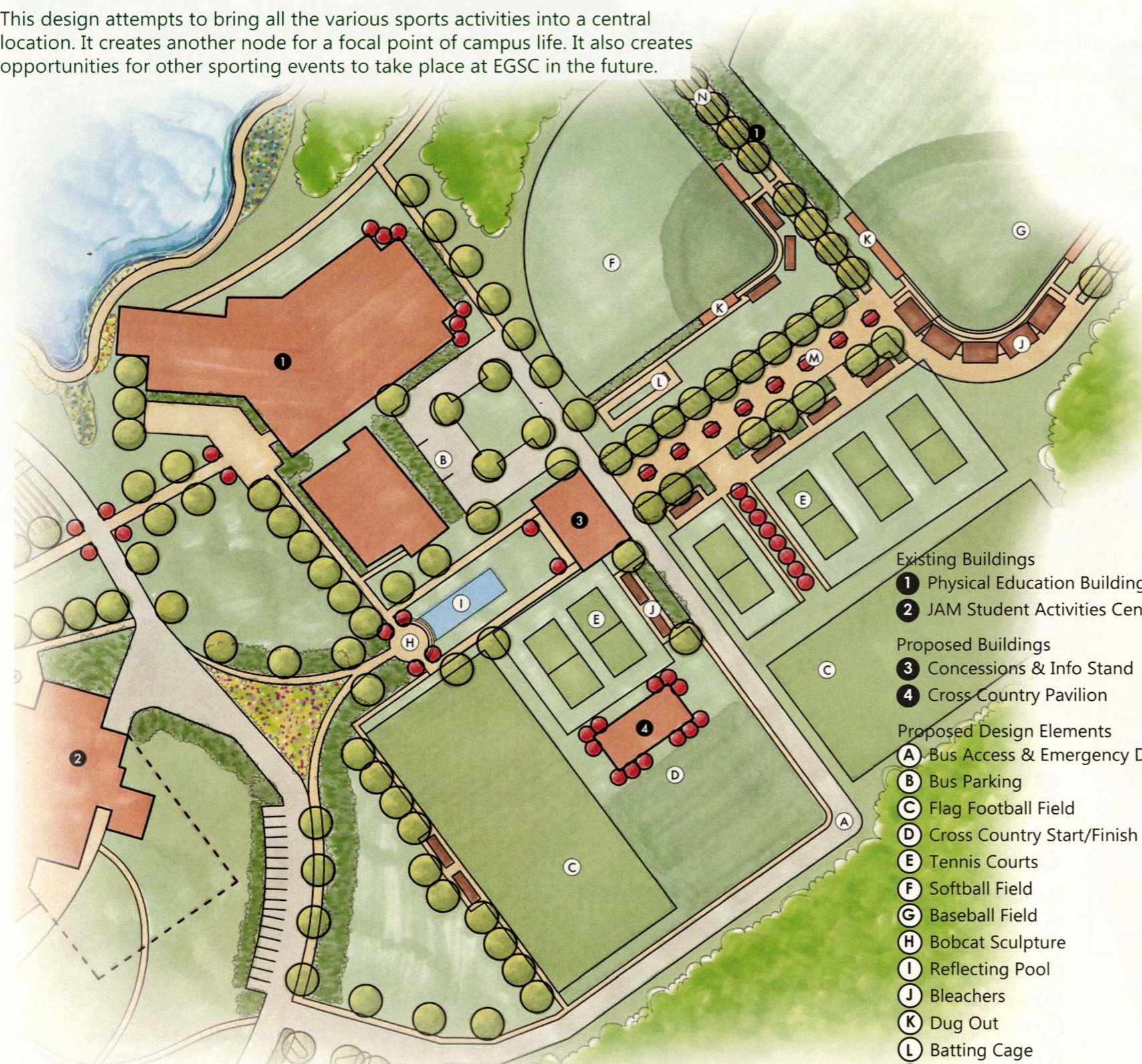


Nichol, Rachel. "41 Signs You Went To The University Of Kentucky." www.buzzfeed.com. N.p., 13 Aug. 2013. Web. 26

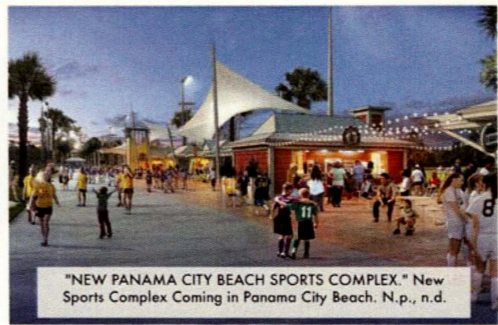
The proposed renovation of Ezra Pond could create many opportunities for research into water quality, wetland ecosystems, and sustainable development techniques. As seen above, a new path is also proposed around the pond's edge. This path consists of concrete sidewalks and wood boardwalks. It meanders in and out of the planting areas as it travels along the pond edge, creating many different types of spaces and activities. Finally, an amphitheater and stage is proposed to serve as an outdoor classroom and space for events.

BOBCAT SPORTS COMPLEX

This design attempts to bring all the various sports activities into a central location. It creates another node for a focal point of campus life. It also creates opportunities for other sporting events to take place at EGSC in the future.



Bobcat Sports Complex Plan
 ⚓ Not to scale.

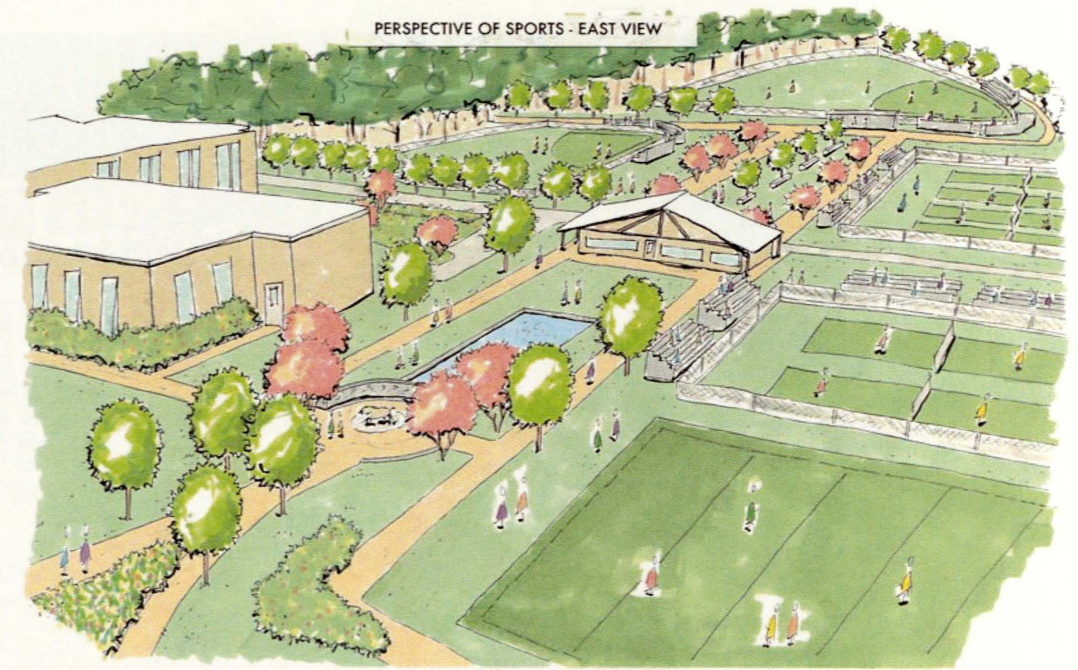


"NEW PANAMA CITY BEACH SPORTS COMPLEX." New Sports Complex Coming in Panama City Beach. N.p., n.d.



"Picnic Pavilions." Anoka County, MN - Official Website. N.p., n.d. Web. 26 July 2017.

Character Images



PERSPECTIVE OF SPORTS - EAST VIEW

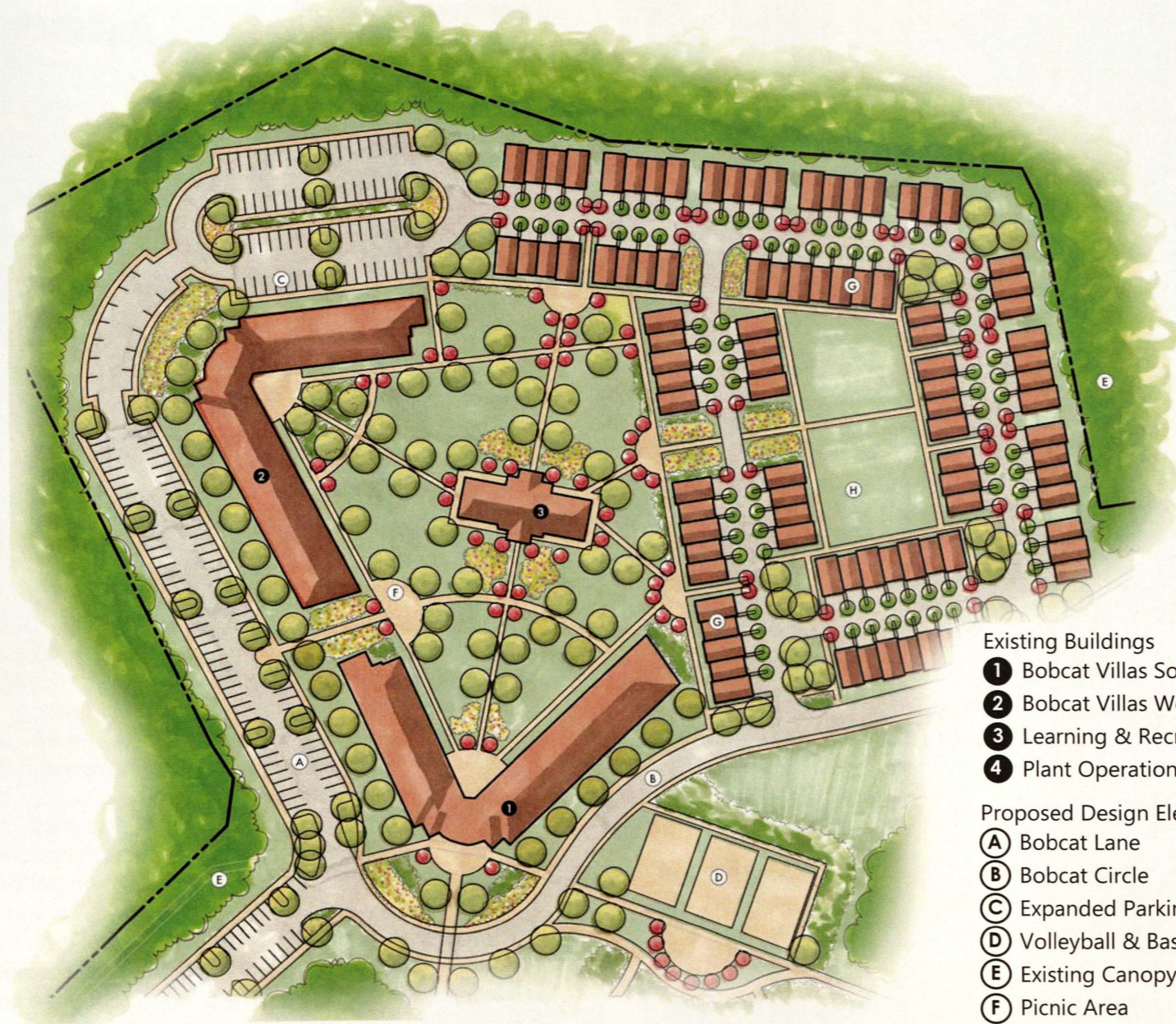
Team sports have become an important part of campus life at East Georgia. Currently, there is no cohesiveness between sports venues, campus, and the Physical Education building. The athletic fields are also not conducive to spectators—there is no shade, no bathrooms, and no seating. The proposed plan keeps all of the elements in their current location while transforming open space between the tennis courts and gymnasium into a pedestrian plaza for spectators and participants. A new concessions, information, and bathroom pavilion is proposed to better serve spectators. Also, a cross country pavilion is proposed for administration during cross country meets. Existing parking is removed and replaced with more intramural fields. A reflecting pool with a sculpture of a bobcat marks the central entry plaza to the complex. Finally, an access/service road has been realigned to allow service vehicles and team buses to access the Physical Education building without negatively impacting pedestrian circulation.

STUDENT & FACULTY HOUSING EXPANSION

East Georgia is projected to need much more student housing in the future. The Bobcat Villas are an efficient way to house students, however, they do not help create an overall sense of community amongst the EGSC student body. Different housing types are needed which are as cost effective, but also promote and encourage social interaction. We discovered a cost effective townhome development in our research, Broad Creek V in Norfolk, Virginia (see pages 54-55).



Context Map



- Existing Buildings
- 1 Bobcat Villas South
 - 2 Bobcat Villas West
 - 3 Learning & Recreation Center
 - 4 Plant Operations Building
- Proposed Design Elements
- A Bobcat Lane
 - B Bobcat Circle
 - C Expanded Parking
 - D Volleyball & Basketball
 - E Existing Canopy
 - F Picnic Area

Student Housing Expansion Plan

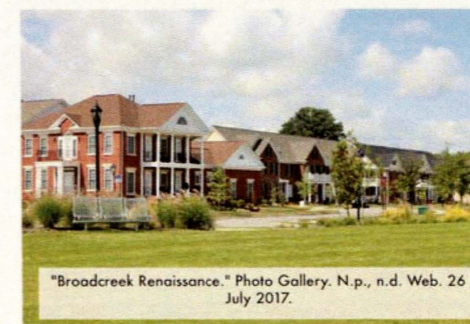
⬆ Not to scale.



Character Images



"Broadcreek Renaissance." Photo Gallery. N.p., n.d. Web. 26 July 2017.



"Broadcreek Renaissance." Photo Gallery. N.p., n.d. Web. 26 July 2017.



"Broadcreek Renaissance." Photo Gallery. N.p., n.d. Web. 26 July 2017.

The townhomes in our design are grouped around open spaces which can be used by students for a variety of activities. This will help promote a sense of community. In addition, the townhome development provides an appropriate transition between East Georgia's campus and the surrounding residential areas.

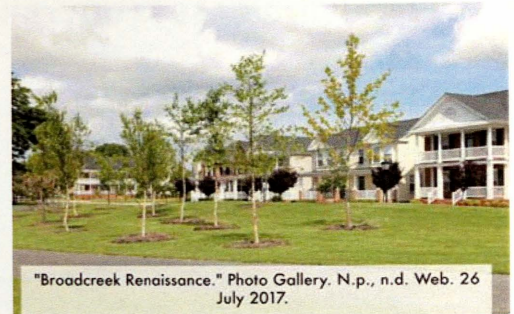
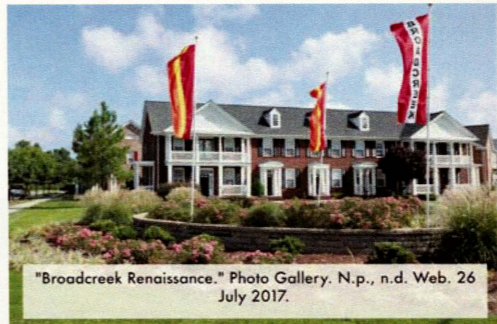


- Existing Buildings
- 1 Academic Building
 - 2 Luck Flanders Gambrell Building
- Proposed Design Elements
- A College Circle
 - B Thigpen Road
 - C North Entrance to Campus
 - D Proposed Townhomes
 - E Existing Canopy

Students & Faculty Housing Expansion Plan

Not to scale.

Character Images



The West side of campus provides another opportunity for housing. More faculty will be needed as enrollment expands, but salaries for EGSC are not competitive with larger institutions. However, on-campus faculty housing provides an extra incentive for prospective faculty to join the East Georgia community. The design proposes integrating student and faculty housing into communities based upon areas of study. For example, biology majors could live in a biology community with biology faculty. This arrangement could be beneficial from both an academic and a social standpoint.

METRICS
 Dorms: Approx. 330 Beds
 Other: Approx. 340 Beds
 Total: Approx. 670 Beds

HOUSING CASE STUDY: BROAD CREEK V

Broad Creek V

Norfolk, Virginia

Architect

Retnauer Baynes Associates



Photos Courtesy of Retnauer Baynes Associates

The homes are attractive and modern, and provide sustainable housing for low- and moderate-income individuals.

The Norfolk Redevelopment Housing Authorities Broad Creek initiative includes the redevelopment of original public housing communities and the provision of assistance to adjacent areas through the construction of new homes.

Phase V provides attractive, modern, and sustainable housing for low- and moderate-income individuals, and strengthens the existing community of this neighborhood. The project consists of 50 residential units located on two sites in the Broad Creek area of Norfolk, Virginia. The units include a variety of 1, 2, 3, and 4 bedroom apartments and townhomes, with a percentage of the units being fully accessible.

Broad Creek V was designed to meet EarthCraft™ strict platinum certification requirements. The building envelopes are air tight and efficient; and continuous insulation to the exterior, Energy Star® windows, and additional features and materials help minimize heat gain/loss.

The mechanical and electrical systems are energy efficient, and include LED lighting and a generous amount of natural



The kitchens are efficient with modern shelving, granite countertops, and low flow plumbing fixtures.

Design Cost Data / May-June 2017



The units include a variety of 1, 2, 3, and 4 bedroom apartments and townhomes, with some of the units being fully accessible.



The building envelopes are air tight and efficient, and continuous insulation to the exterior Energy Star® windows help minimize heat gain/loss.

light. The plumbing fixtures are low flow, and the landscape is designed with native planting and less grass, to reduce water consumption.

The interior of the units is modern and spacious, with tall ceilings and an open floor plan. The materials and color were selected for durability and their air of welcome to the residents. The traditional fenestration of the homes reflects the historic nature of Norfolk, and continues a long-standing promise to the area's residents to provide excellent low-cost housing.

EarthCraft™ Certified

Product Information
 Building Envelope: HardiePlank®
 Roofing: GAF Timberline
 Windows: Atrium
 Entrances & Storefronts: Jeldwen
 Flooring: Shaw, American Olean, Armstrong



The interior of the units is modern and spacious, with tall ceilings, natural light and an open floor plan.

Design Cost Data / May-June 2017

Broad Creek V

Architect

Retnauer Baynes Associates
 432 Battlefield Boulevard, Chesapeake, VA 23322
 www.rbapc.com

Project Team

Structural Engineer
 McPherson Design Group
 6371 Center Drive, #100, Norfolk, VA 23502

Mechanical & Electrical Engineer
 Hickman Ambrose, Inc.
 814 Greenbrier Circle, Chesapeake, VA 23320

Civil Engineer
 Pennoni
 349 Southport Circle, #100, Virginia Beach, VA 23452

General Contractor
 Hoy Construction
 3495 Progress Road, Norfolk, VA 23502

Project General Description

Location: Norfolk, Virginia
Date Bid: Sep 2014
Construction Period: Sep 2015 to Dec 2016
Total Square Feet: 59,563
Site: 3.573 acres.

Number of Buildings: 16 buildings. Number of apartments: 10 one-bedroom; 19 two-bedroom; 16 three-bedroom; 5 four-bedroom.

Building Sizes: Total gross square feet: 59,563; total rentable square feet, 53,450 (5 one-bedroom, 608; 5 one-bedroom, 704; 2 two-bedroom, 987; 2 two-bedroom, 1,042; 15 two-bedroom, 1,005; 10 three-bedroom, 1,289; 3 three-bedroom, 1,306; 3 three-bedroom, 1,398; 5 four-bedroom, 1,351).

Building Height: First floor, 9'; second floor, 8'; total, 29'7".

Basic Construction Type: New.

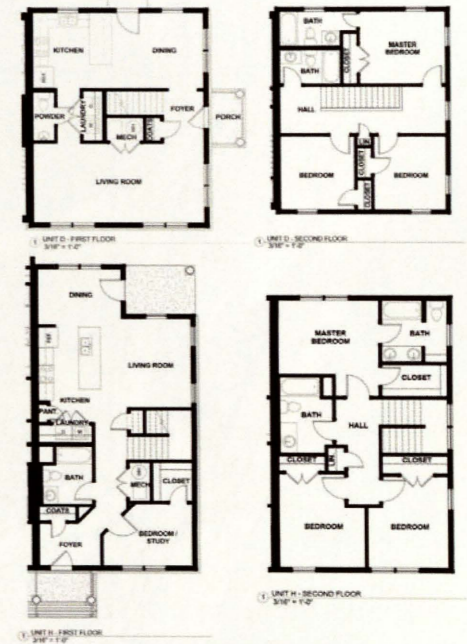
Foundation: Slab-on-grade.

Exterior Walls: CMU, brick, wood framing, HardiePlank®.

Roof: Asphalt shingles. **Floors:** Concrete, wood.

Interior Walls: Wood stud drywall.

RESIDENTIAL RS170534



DIVISION	COST	% OF COST	SQ.FT. COST	SPECIFICATIONS
GENERAL REQUIREMENTS	485,000	9.38	8.14	—
CONCRETE	347,200	6.71	5.83	Cast-in-place, concrete breakdown (cubic yards foundation, 450). Unit.
MASONRY	442,000	8.54	7.42	Fabrications, decorative.
METALS	78,400	1.52	1.32	Rough carpentry, finish carpentry, architectural woodwork.
WOOD, PLASTICS & COMPOSITES	1,149,570	22.22	19.90	Thermal protection, roofing & siding panels, roof & wall specialties & accessories.
THERMAL & MOISTURE PROTECTION	656,460	12.69	11.02	Doors & frames, windows, hardware.
OPENINGS	191,200	3.70	3.21	Plaster & gypsum board, flooring, painting & coating.
FINISHES	517,000	9.99	8.68	Casework, other.
FURNISHINGS	178,000	3.44	2.99	Piping & pumps, equipment, fixtures.
PLUMBING	538,000	10.36	9.00	Air distribution, central HVAC equipment.
HVAC	300,000	5.80	5.04	Medium-voltage distribution, low-voltage transmission, lighting.
ELECTRICAL	292,000	5.65	4.90	Earth moving.
TOTAL BUILDING COSTS	6,172,910	100%	\$86.85	Rasps, bollards & paving, planting, improvements.
EARTHWORK	651,000			Water, sanitary sewerage, storm drainage.
EXTERIOR IMPROVEMENTS	481,000			
UTILITIES	590,000			
TOTAL PROJECT COST	6,904,910			

UPDATED ESTIMATE TO JUNE 2017: \$96.20 PER SQUARE FOOT

Regional Cost Trends					
This project, updated to June 2017 in the selected cities of the United States.					
EASTERN U.S.	Sq. Ft. Cost	Total Cost	CENTRAL U.S.	Sq. Ft. Cost	Total Cost
Atlanta, GA	\$97.25	\$5,792,645	Dallas, TX	\$94.08	\$5,603,754
Pittsburgh, PA	\$122.62	\$7,303,769	Kansas City, KS	\$126.85	\$7,555,623
New York, NY	\$156.45	\$9,318,602	Chicago, IL	\$132.14	\$7,870,441
			Los Angeles, CA	\$125.79	\$7,492,660
			Las Vegas, NV	\$115.22	\$6,863,025
			Seattle, WA	\$125.79	\$7,492,660

For more information on this project and similar projects visit www.dcdarchives.com

Design Cost Data / May-June 2017



Signage for Broad Creek entrance. (Photo from pylerealty.com/broad-creek-villas/)



www.nrha.us/redevelopment/neighborhoods/broad-creek-0

Part of the open space provided for residences are walkways that look out over the lake.



View of townhomes from the back. (Photo from pylerealty.com/broad-creek-villas/)



www.nrha.us/redevelopment/neighborhoods/broad-creek-0

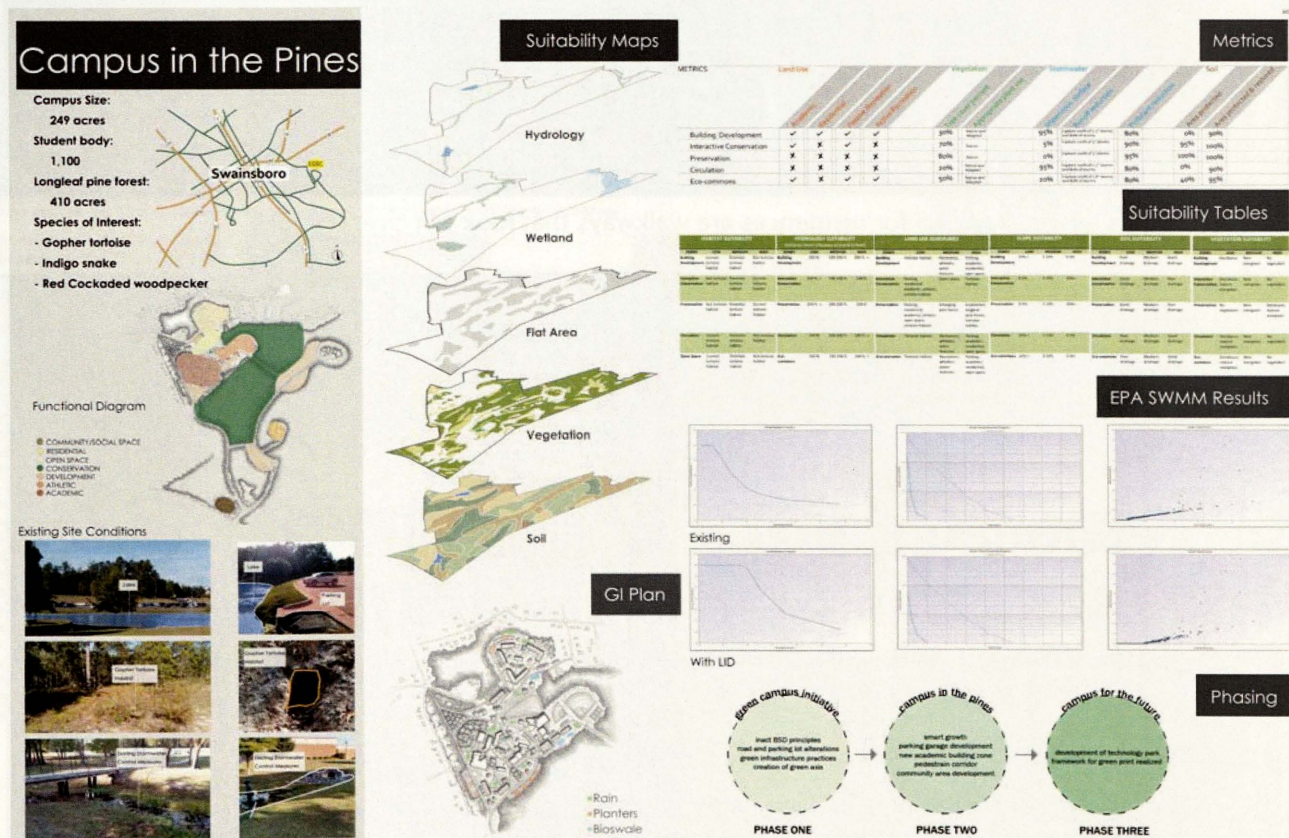
View of townhomes from the front.

6.0 APPENDICES

6.1 EPA GREEN INFRASTRUCTURE PLANS

Stormwater runoff is a significant source of water pollution across the US. The Campus RainWorks Challenge is a competition hosted by the Environmental Protection Agency (EPA) to encourage students to foster a dialogue around responsible stormwater management on their campuses. Design teams are also supposed to highlight the environmental, economic, and social benefits of green infrastructure projects through their project submissions.

As part of the master planning process, the MLA Ecology Studio divided into three teams to draft stormwater management and green infrastructure plans for EGSC. All teams submitted their projects to the EPA RainWorks Challenge and one team received Honorable Mention for their work. The posters submitted to the Challenge are presented in this spread.

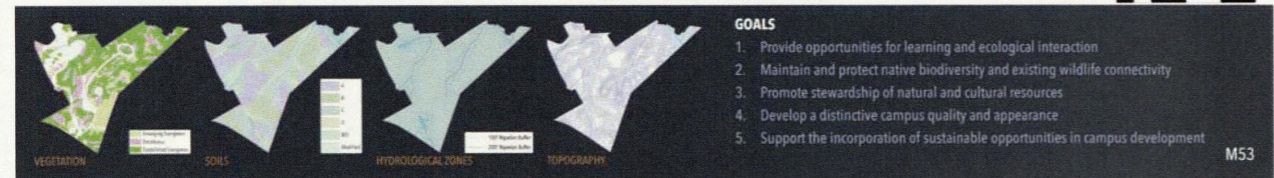
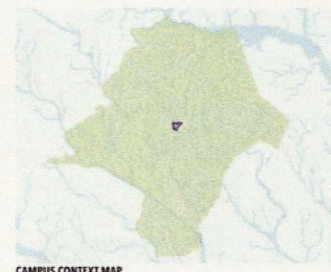


CAMPUS IN THE PINES MASTER PLAN

Located just outside of downtown Swainsboro, East Georgia State College's diverse student population is largely first generation and non-traditional college students who have been raised in economically depressed conditions within rural east-central Georgia. By tailoring academic programs to meet the challenging developmental needs through learning support while also maintaining affordable tuition, East Georgia State College has been successful in increasing the educational levels of the communities it serves. Recently, East Georgia State College (EGSC) acquired a significant amount of land adjacent to their current property allowing them to expand their campus and their mission to the community.

As designers, we were tasked to generate a green infrastructure park master plan that seeks to create a sustainable site by balancing ecology, economy, and social equity. This plan would also incorporate the infrastructural expansion that would allow for a traditional on-campus college lifestyle, as well as a doubling of the student population, while protecting the extensive animal habitat located on the campus and mitigating the ecological footprint of said development. Historical and GIS data research, a campus site visit analyzing suitability and site identity, as well as a consultation with university administrators, biology professors, and other stakeholders were used to create our green infrastructure plans.

VISION
To design a rich and engaging campus by encouraging student learning, embracing the character of the region, advancing sustainability practices, and minimizing ecological impact.



M53

CAMPUS IN THE PINES MASTER PLAN

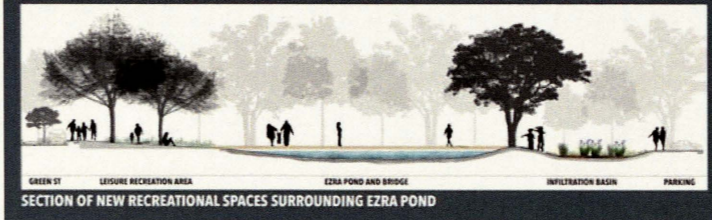
Justin Di, Lindsey Howell, Chen Gu, Deyun Gu, Landon Woodward, and Alex Yuan

Our design is based on a system of three connected hubs resolving the campus's need for expansion while preserving the existing habitat. For the existing campus, we prescribed extensive infiltration to maximize the already disturbed areas and best management practices to mitigate rainwater runoff from current and proposed development. The second hub was placed at the entrance to the campus as a core for community-oriented infrastructure such as playing fields and a community recreation center. Lastly, we sited the development of a hub for specialty housing and classroom buildings located on the technology park's existing roadway. Our placement of the hubs were determined by extensive suitability analysis and a series of performance metrics for development, circulation infrastructure, open spaces, riparian areas, habitat conservation, and green infrastructure.



GREEN INFRASTRUCTURE INFILL MAP

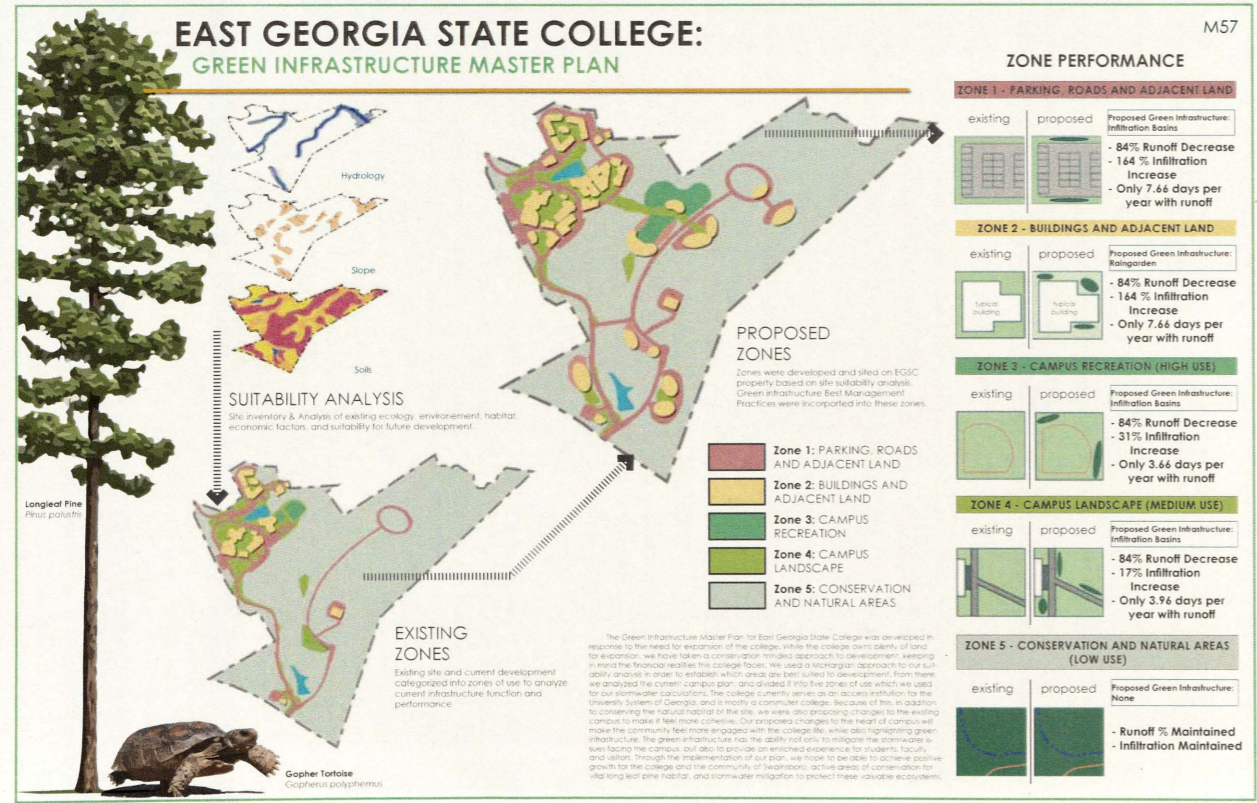
PERSPECTIVE OF GREEN STREET AND PARK



Decreased **SURFACE PARKING** by 16 percent
 7 percent **RUNOFF** reduction
 Established 175 acres of **CONSERVATION LAND**
 Increased from ZERO **RAIN WATER HARVESTING SYSTEMS** to 9
 Increased from 13 **CAMPUS BUILDINGS** to 22
 Increased from ZERO sq ft **PERMEABLE PAVING** to 16,000 sq ft
 8 percent increase in **INFILTRATION**

M53

EAST GEORGIA STATE COLLEGE: GREEN INFRASTRUCTURE MASTER PLAN



M57



M57

