

CENTER OF CENTERS MASTER PLAN

CLEMSON UNIVERSITY 2003

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The fundamental concept of the Center of Centers Master Plan is the creation of an orchard, which is reminiscent of Clemson's agricultural past, yet its openness and ever evolving appearance looks to the future.

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Executive Summary

Background and Scope

Background To achieve its vision of becoming one of the nation's top-20 public universities Clemson University has recently completed a comprehensive Master Plan based on a new academic plan. Clemson's mission to promote strong academics programs, mission-oriented research and relevant public service led the concept of a Center of Centers, which brings together vital research and service centers that are currently randomly placed on campus.

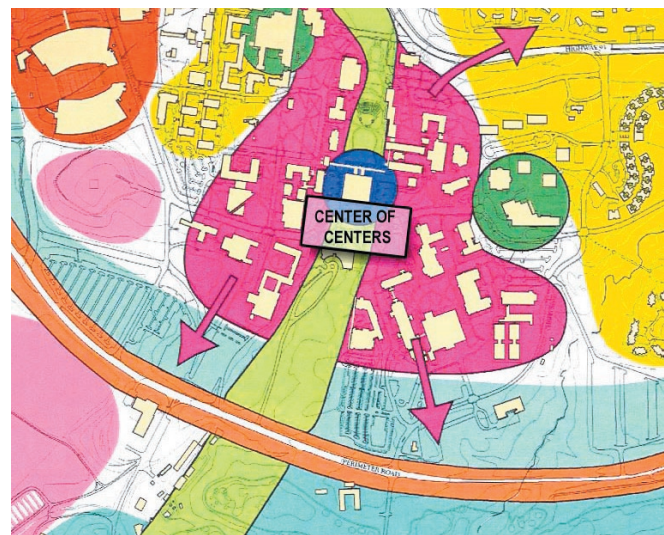
To foster students' communication and critical thinking skills, ethical judgement, global awareness, and scientific and technical knowledge the combined programs of the Center of Centers are meant to achieve a critical mass of interaction, leading to a cross-pollination of ideas and the enhancement of interdisciplinary thinking.

In addition to the academic, research and service goals, the Center of Center is intended to enhance Campus life by strengthening a sense of community, improving student performance by attracting better students and increasing educational resources and therefore elevating Clemson's national reputation.

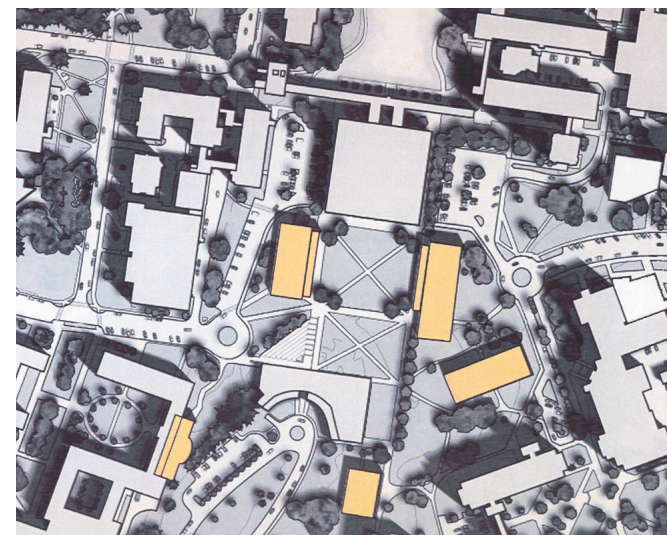
Clemson University selected six firms to submit a planning scheme and design ideas for the Center's first phase -the Academic Support Center (ASC) in April 2003.

PROGRAM

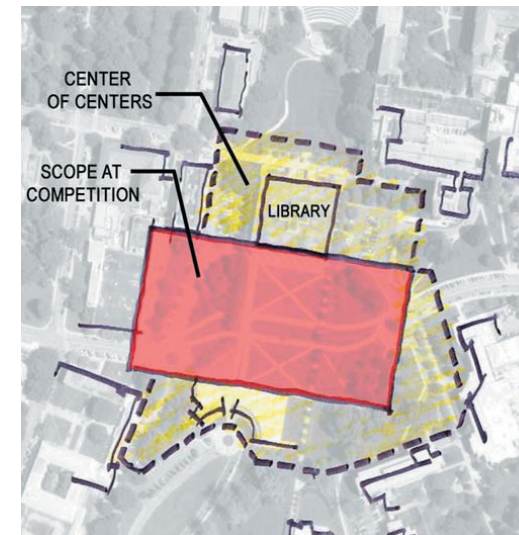
- Academic Support Center: 34,000 GSF
- Teaching & Learning Centers: 20,000 GSF (x 2)
- Center for Entrepreneurship: 20,000 GSF
- Scholars Center: 12,000 GSF
- University Club: 12,000 GSF
- Additional function:
"Home for Graduate students" (D. Helms)



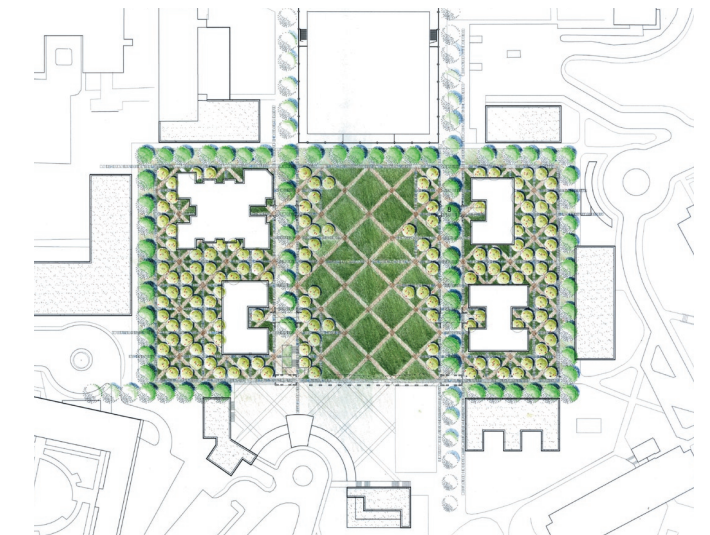
Project Site in 2002 Master Plan



Project Site in 2002 Master Plan



Scope



Competition Scheme May 2003

GOALS FOR THE CENTER OF CENTERS

Overall goals of this plan are to support the general design principles and guidelines established by the 2002 Campus Master Plan.

Overarching Design Principles:

- Promote intellectual and social interaction,
- Respect cultural and historic resources, and
- Value sustainable design.

Clemson “10 Year Goals” – April 2001

- Increase our focus on collaboration.
- Seek and cultivate areas where teaching, research and service overlap
- Recognize and appreciate Clemson’s distinctiveness.
- Strengthen our sense of community and increase our diversity.

In addition, the following goals have been identified for this specific master plan in order to guide the design process:

- Foster collaboration: enable the cross-pollination of ideas
- Enhance Clemson’s distinctiveness through architectural and landscape design
- Establish new connections between people, programs, and places
- Create a setting for the marking of significant Clemson events
- Create a unique precinct for Clemson where Research, Teaching and Service overlap
- Provide a new home for graduate students
- Enhance the Campus Green; reinforce spatial connections throughout the heart of campus
- Improve the spatial conditions around Strom Thurmond Institute and Cooper Library

MASTER PLAN

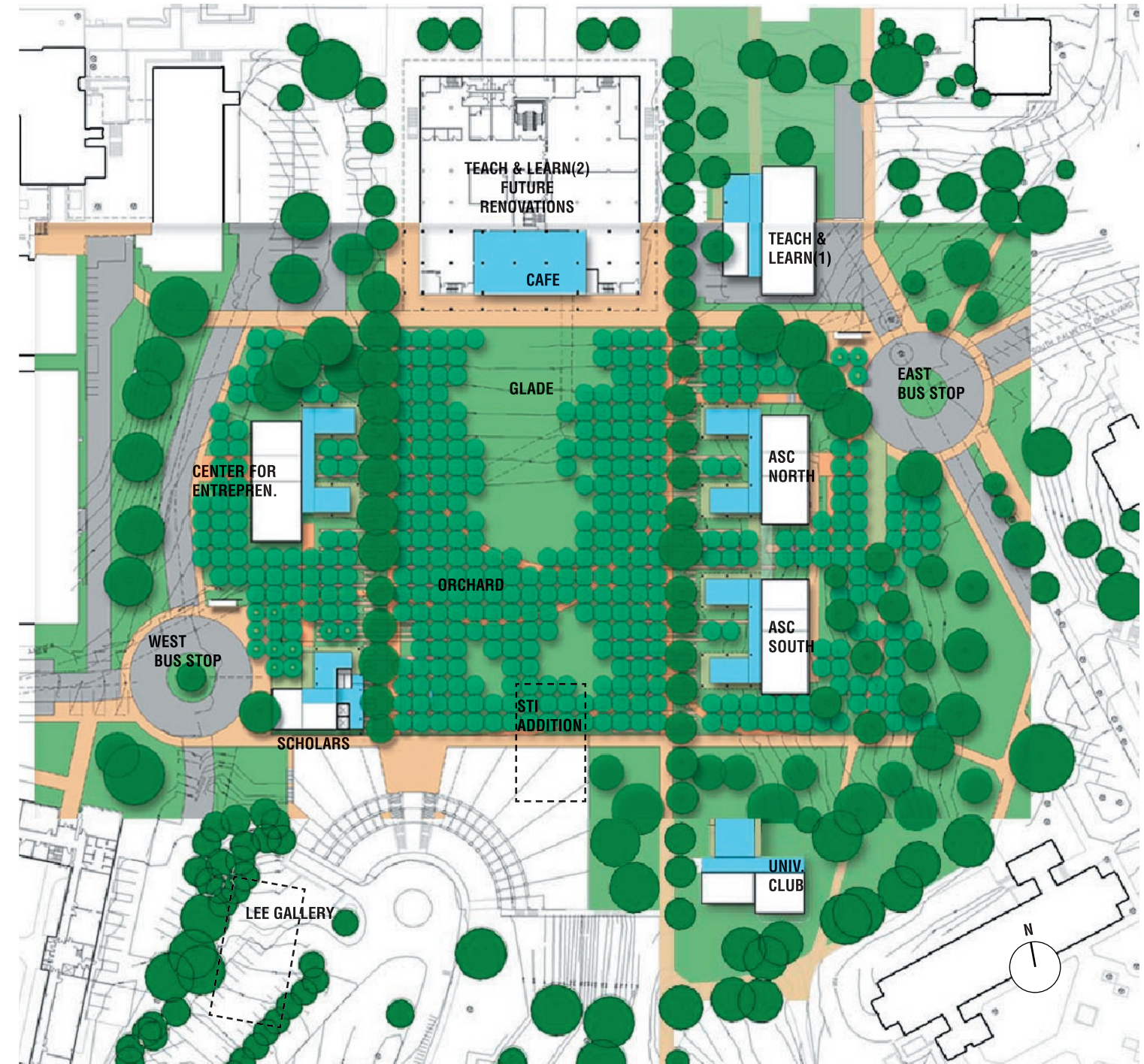
The Master Plan is a refined version of the winning competition scheme. The common fundamental principles and ideas are calibrated to fit the site and the program in order to achieve the high goals in regards to campus life, academic education and representative campus space.

Pavilions in the Orchard A geometrical grid of flowering trees, occupies a territory defined by a pattern of open paths. Space enclosed is both open to all and particular; it covers the entire surface, but creates pockets of intimate scale for resting, meditation, and spontaneous social encounters. The Centers are housed in individual buildings, sitting within the orchard. Buildings are discovered through the natural screen of the flowering trees, and enjoy the privacy of the secluded spaces it creates. Public and representative functions are located in transparent wings that form welcoming entry courtyards at each building.

A Distinct District A unique environment is defined spatially by the “Orchard Carpet” that covers the surface. Unique in the campus fabric, it is situated at the juncture of crossing pedestrian paths and patches of green.

Focus of Intensity Civic Center for the Campus; everybody’s place, suited for general use and display of institutional character. Equipped for events, gatherings, festivals, encounters and celebrations. Location is central, and connects the North and South sections of the Campus Green.

Campus Green The Campus Green flows through the Center of Center’s site, embedding it into the continuous fabric of green campus spaces. The Center’s unique identity is thus an enriching element of Clemson’s “Genius Loci”.



Master Plan Pavilions in the Orchard

Competition

May 2003: Presentation / Interview / Selection
July 2003: Design Workshop on all competition entries

Thomas & Denzinger and Payette Associates were commissioned to master plan the precinct after winning the competition.

Schedule

Precinct Planning: August 2003 – January 2004
Design ASC: November 2003 – November 2004

Users

June 2003: Kickoff meeting
August 2003: User meeting

Design Review Milestones

Campus Planning - December 2003
Master Plan Task Force:
November 2003 – First Review
January 2004 (TBD) – Final Review

Users

Academic Learning Center
Honors College
Lee Gallery
Pearce Center
Provost's Office
Rutland Center for Ethics
School of Architecture, Arts & Humanities
Spiro Center for Entrepreneurial Leadership
Strom Thurmond Institute
Student representatives
University Club
University Libraries

Other Clemson Contacts:

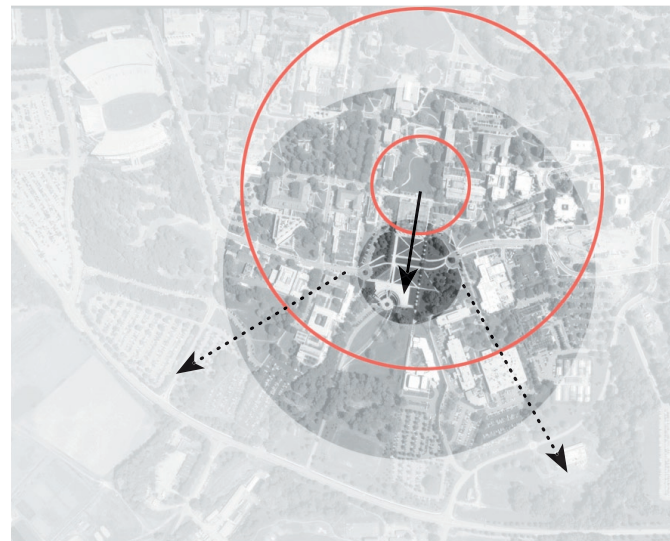
Campus Planning Services
Fire Department
Municipal Services
University Facilities

ANALYSIS

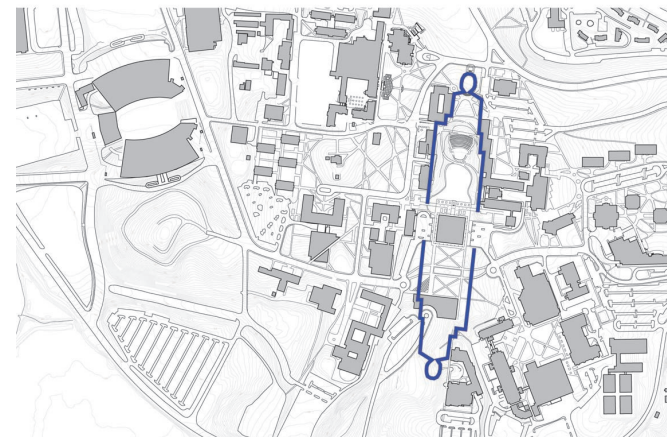
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Center of Gravity Currently the perceived center of gravity of the Campus is north of Cooper Library. By developing the Center of Centers' site the prominent programmatic additions, the new cross campus connections and the representative nature of the landscape will shift and enlarge the focal point. The Center of Centers will link the Agriculture Quad and the High Ground Precinct, which lose their peripheral status to become integral part of the campus.

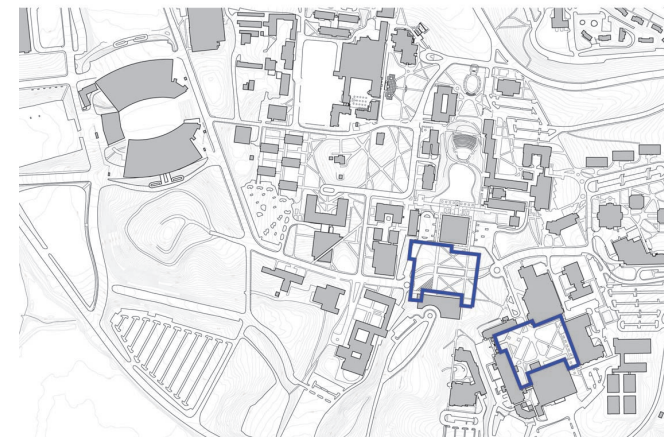
Scale Studies Set I These scale studies reveal how the site relates to other important spaces on campus. Together they illustrate that the size of the space corresponds to existing spaces, which helps its integration into the existing spatial fabric.



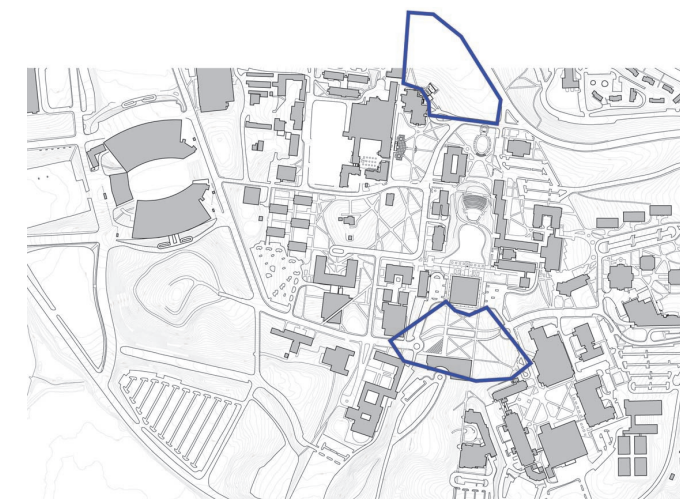
Center of Gravity shifting South, Reinforced Connections



Scale Comparisons Set I
Campus Green North of Library

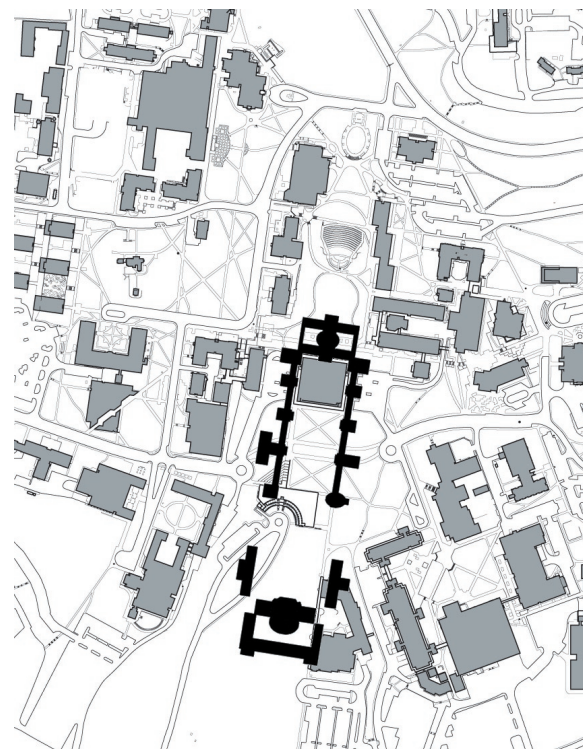


Scale Comparisons Set I
Ag Quad

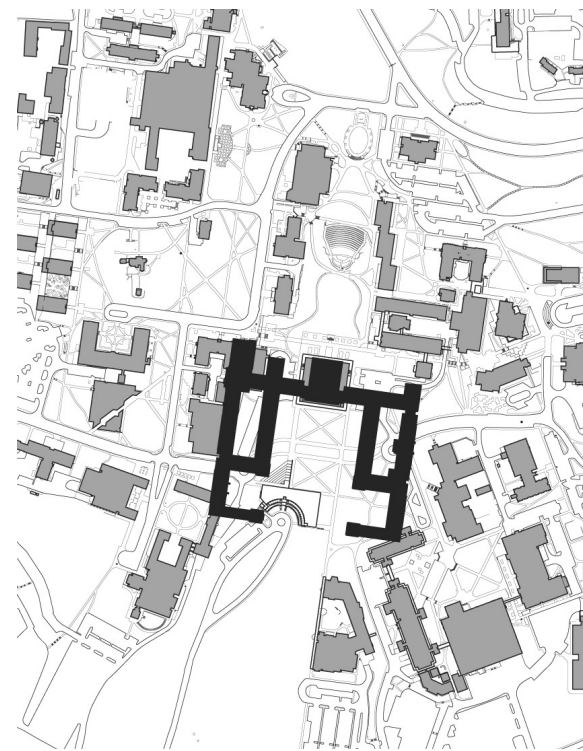


Scale Comparisons Set I
Bowman Field

Scale Studies Set II Comparisons with notable campuses reveal how the site relates to other prominent, identity giving spaces. They demonstrate the potential of the site to be elevated to a memorable, central campus space.



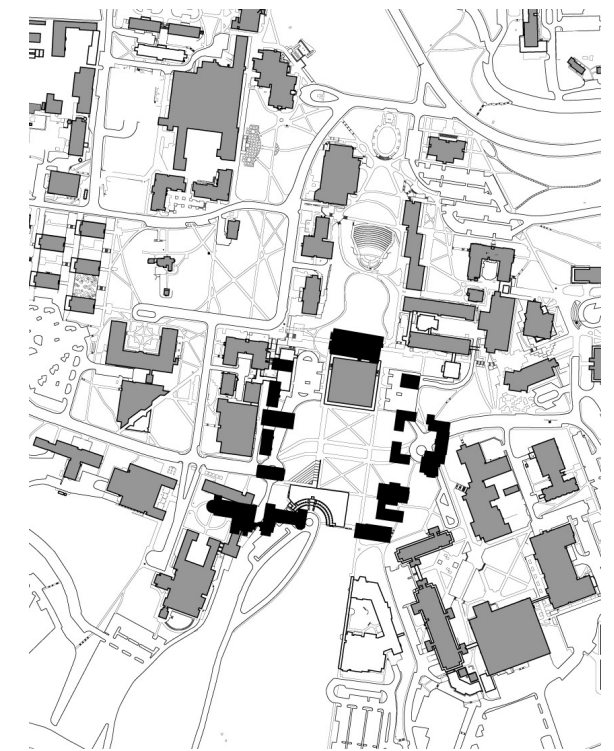
Scale Comparisons Set II
UVA Quad



Scale Comparisons Set II
MIT Kilian Court



Scale Comparisons Set II
Harvard Yard



Scale Comparisons Set II
Amherst College

Grid The Center of Centers site is contained in the main grid of the campus, which enforces the formal symmetry of the central axis. The continuity of the grid is a key element to embed the identity of the new buildings into the meaningful fabric of campus spaces.

However, the new precinct plan will need to define how to transition into the adjacent peripheral grids of the Agriculture Quad and the High Ground Precinct.



Site within Campus Main Grid

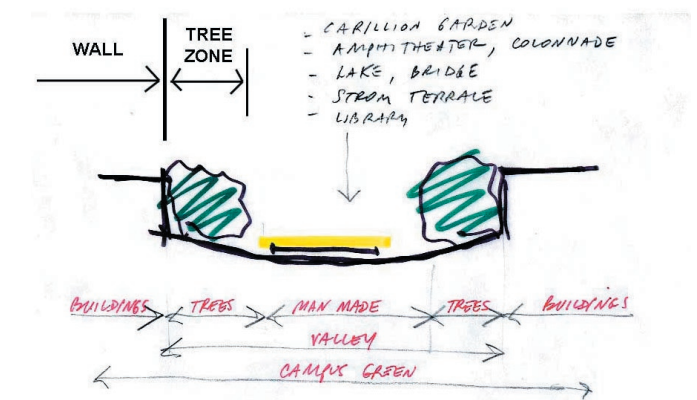


Adjacent Peripheral Grids

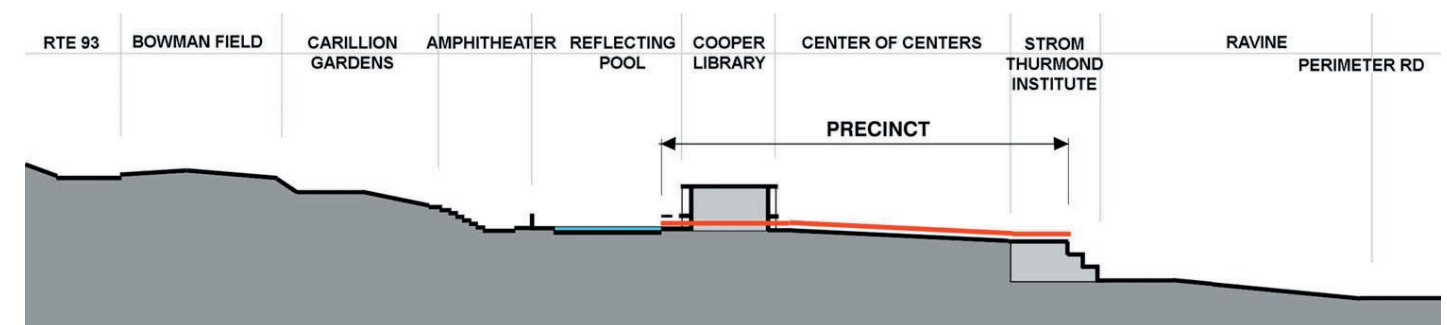
Topography The continuous slope of the Central Campus Green is interrupted by a nearly horizontal plain that extends from the lake over the Library to the Center of Centers site. This topographical continuity naturally links the programs and offers the opportunity to use water as a connecting element.

Along the Campus Greens' eastern and western border the topography rises adding further definition and identity to this important public space.

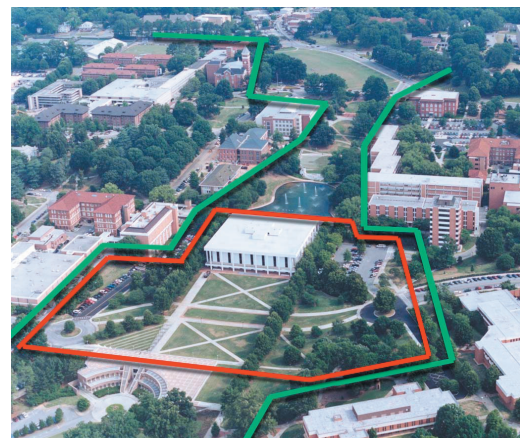
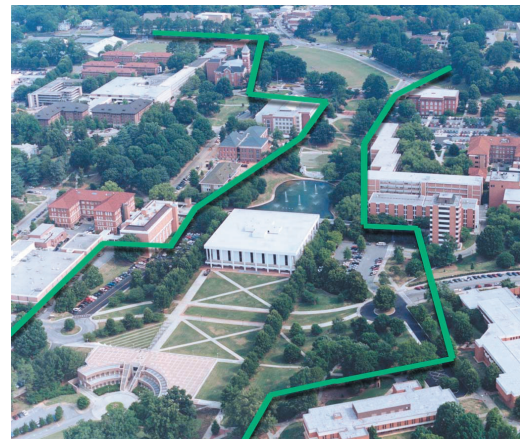
The new precinct plan will continue this Condition in order to weave the new buildings into a continuous landscape.



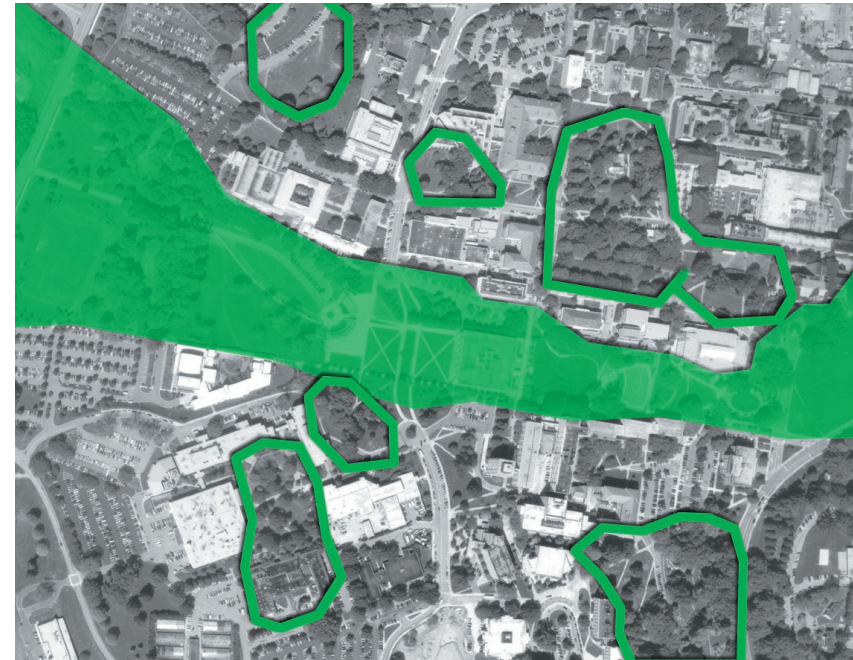
Conceptual Section East-West through Central Campus Green



Section North-South through central Campus Green



Continuous Campus Green at Central Spine



Open Green Space Types: Spine and Spaces



Spatial/Programmatic Elements embedded in Campus Green

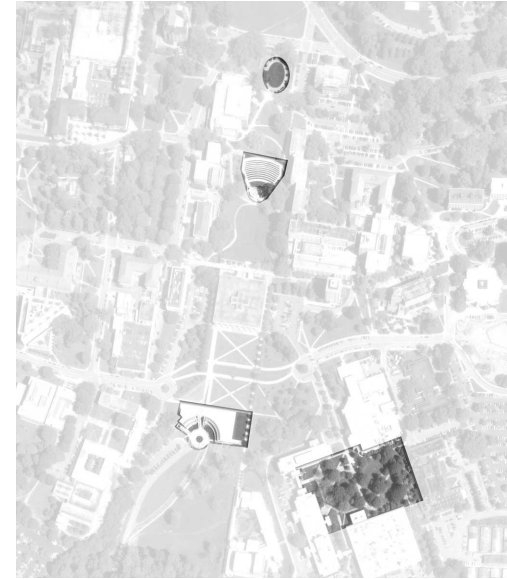
Campus Green The Center of Centers site is an integral part of a green spine running through the campus. Defined by buildings, vegetation and topography it contains public outdoor spaces (amphitheater, Carillon Garden, lake) and the Cooper Library. Along its sides major pedestrian paths connect the campus from north to south.

This prominent ensemble of spaces and functions lies at the heart of Clemson's geographical and mental identity. This setting allows the new precinct to build on and strengthen the unique "Genius Loci" of Clemson.

Open Space Types



Organic Nature



Man Made Spaces

Space Types Clemson's Campus consists of a tapestry of organic, nature-like spaces and a distinct set of geometrically controlled "man-made" outdoor rooms that reflect the cultural and social needs of the campus community.

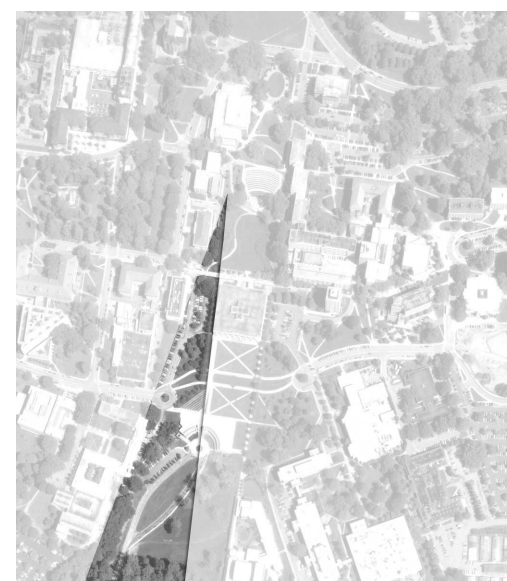
The Center of Centers site is part of both worlds - the natural and the cultural - and requires a thoughtful design to incorporate them.

View Corridors Visual relationships across campus are crucial to maintain a sense of unity and connectedness. They contribute to integrate the new precinct in the larger context as a new and central destination. Views across and beyond the precinct furthermore underline the presence of the Center of Centers on campus.

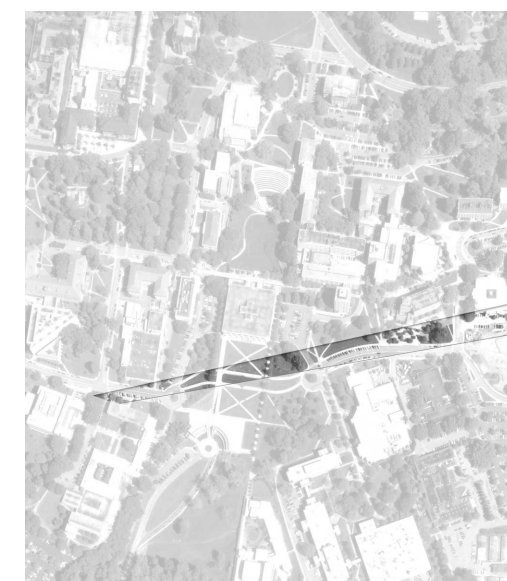
View Corridors



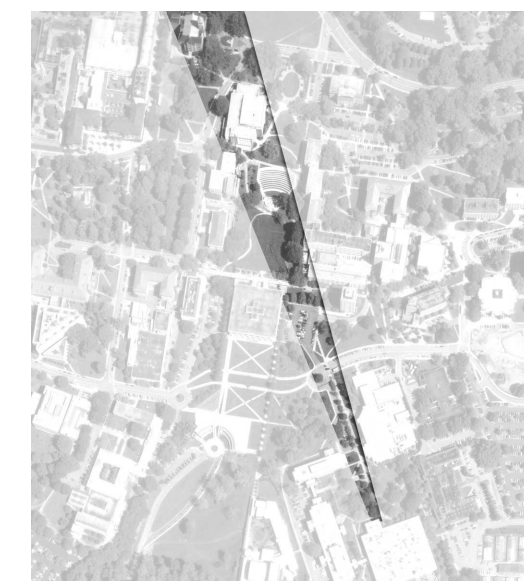
Views from Library



Views from Olin and Hardin Hall



Views West to East

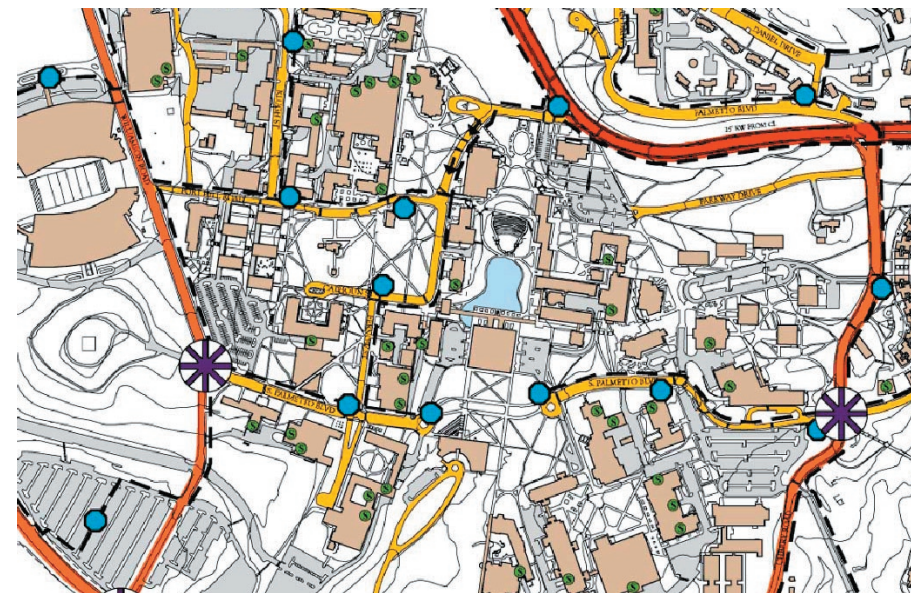
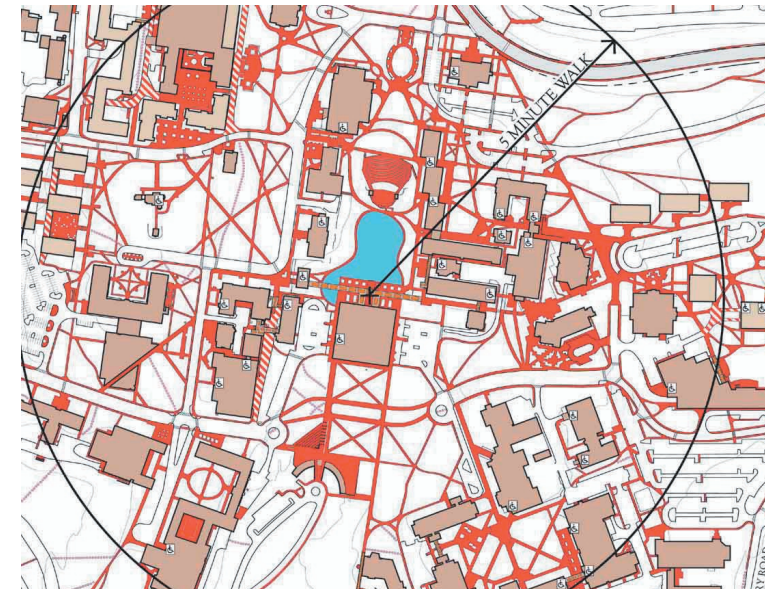


Views from Tillman Hall through Agriculture Quad

Circulation Located at the heart of the campus the Center of Center can be easily accessed from all directions. Sitting at the intersection of major pedestrian paths it is a hub from which most of the campus is reached within a few minutes.

Although circulation across campus is currently possible, the new precinct will foster connectivity between the new High Ground Precinct to the West and the Agriculture Quad to the west by virtue of inserting prominent programs into the currently vacant site.

Furthermore, the site borders two bus route loops and is integrated in the street system, allowing for easy vehicular access.



Roads - Bus Routes DLCA Masterplan

Pedestrian Paths

PRECINCT MASTER PLAN

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Program The precinct program was defined by Clemson as the basis for the May 2003 design competition.

Academic Support Center:	34,000 GSF
Teaching & Learning Centers:	20,000 GSF (x 2)
Center for Entrepreneurship:	20,000 GSF
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University Club:	12,000 GSF

Additional function: "Home for Graduate students" (D. Helms)

Subsequent input from the users and from the Master Planning Task Force resulted in a more comprehensive view of the potential uses of the center's buildings and open space. Additional opportunities for outdoor classrooms, meeting spaces integrated within the "orchard" were explored, as well as a home for graduate students –which can be integrated within other centers- and a café in the ground level of the Cooper Library.

The importance of the precinct will be enhanced by the significance of the programs of the individual centers . In addition, the proximity of the precinct to two other significant structures –Cooper Library and the Strom Thurmond Institute- results in a more meaningful and unique agglomeration of functions.

Cooper Library: The incorporation of the Cooper Library to the Center of Centers is a key element in the development of the precinct. The future of Cooper Library will be shaped by larger changes in the concept of academic libraries: from a static repository of books, to a center of knowledge and social interaction. A separate process will determine the fate of the structure. However, as part of the Center of Centers project, this plan calls for a localized renovation of the ground floor of the library, in order to open up the floor to the campus environment.

A new security screening strategy would allow the main floor to be accessible, transparent, and open to the buildings adjacent open spaces: the reflecting pool to the North, and the Center of Centers to the South. In addition, the opening of the floor would enhance the continuity of the Campus Green, flowing through the library to connect the Center of Centers to the main space on campus.

Strom Thurmond Institute: This plan calls for the renovation of the North entry to the building, and for the addition of a new wing to the South. The new entry would consist of a new head house on the main level of the precinct, which could become part of a larger pavilion in the future. By doing this, the triangular stepped depression would be filled, and thus this area would be "returned" to the precinct, to complete the plane of the platform.

Goals for the Center of Centers

- Foster collaboration: enable the cross-pollination of ideas
- Enhance Clemson's distinctiveness through architectural and landscape design
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MASTER PLAN

The Master Plan consists of the definition of a green zone, or precinct, where a series of free-standing pavilions float among the orchard. Each one of these pavilions will house one of the centers called for in the program. In the case of the larger program – the Academic Support Center, two pavilions will be combined to house the program. The four pavilions located in the heart of the precinct will be built first – starting with the ASC, defining the character of the precinct early in the process. Two additional structures will follow in the immediate parcels to the North and South of the orchard. Additional building components of the plan include an addition to the STI, a renovation to the ground floor of the Cooper Library, and the site for a future Lee Gallery to the East of Lowry Hall.

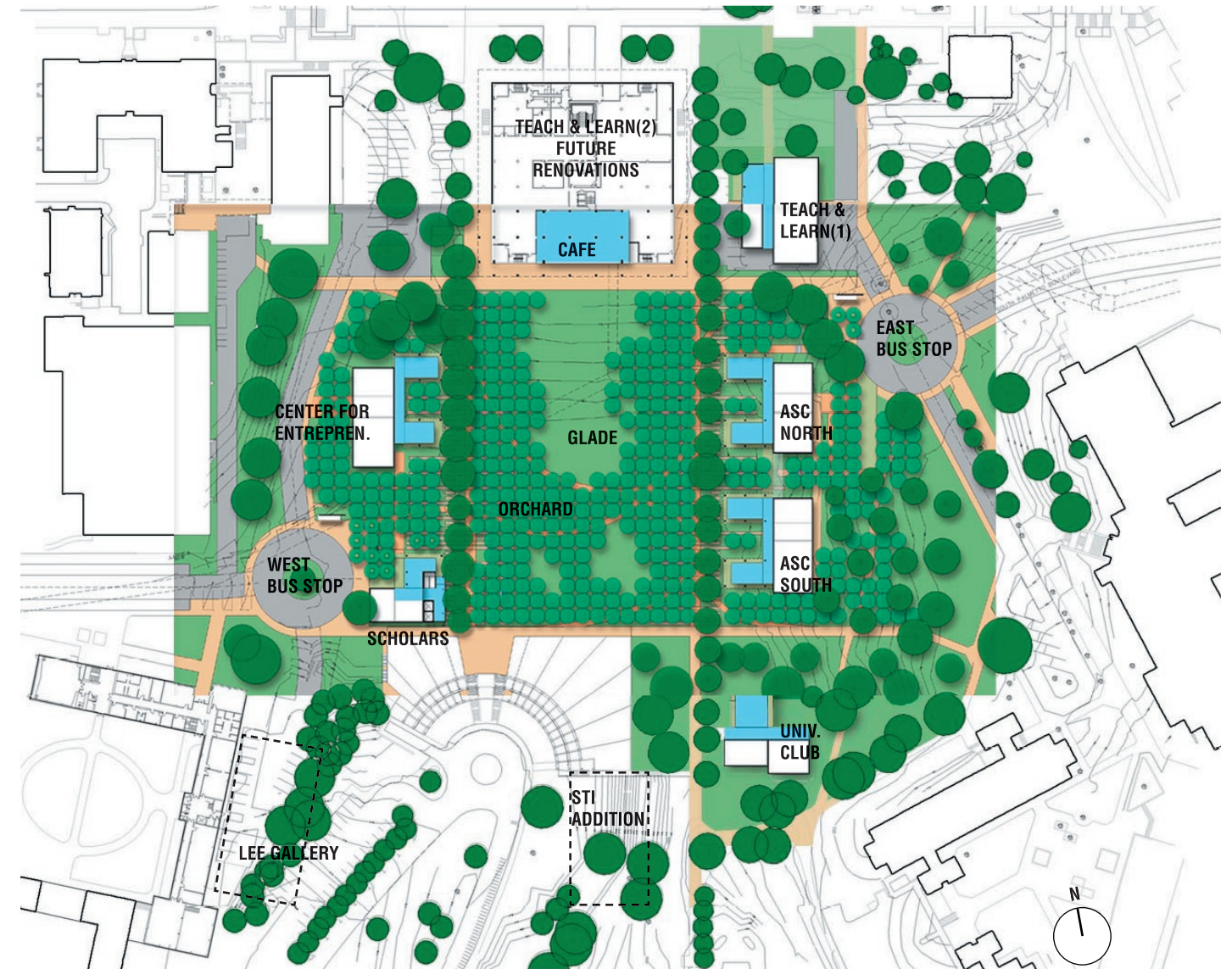
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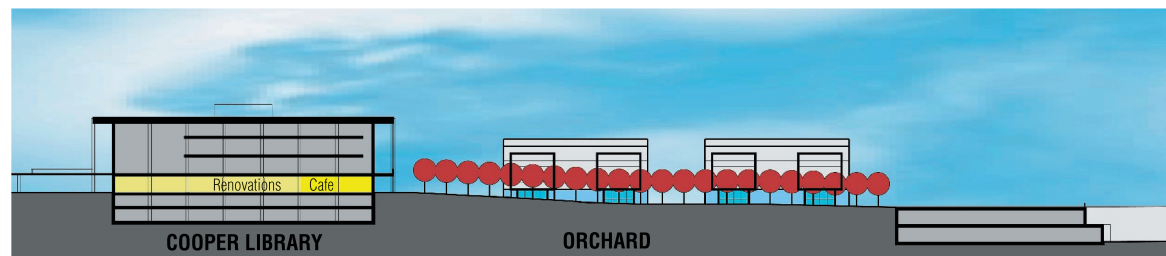
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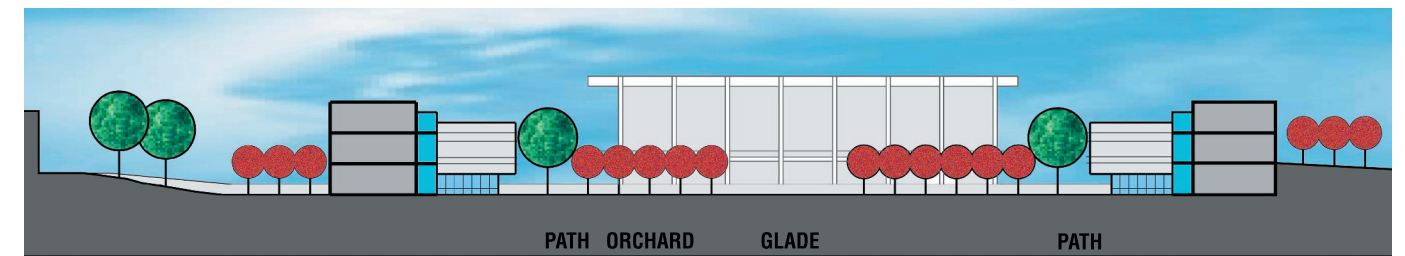
Circulation All buildings and the orchard are located along major walking paths. Pedestrian movement is further enhanced by the vehicular free orchard, which eliminates cross site traffic. Vehicular access occurs from the east and the west side at the back of the buildings where public transportation is also available.



Master Plan Pavilions in the Orchard



Section North-South



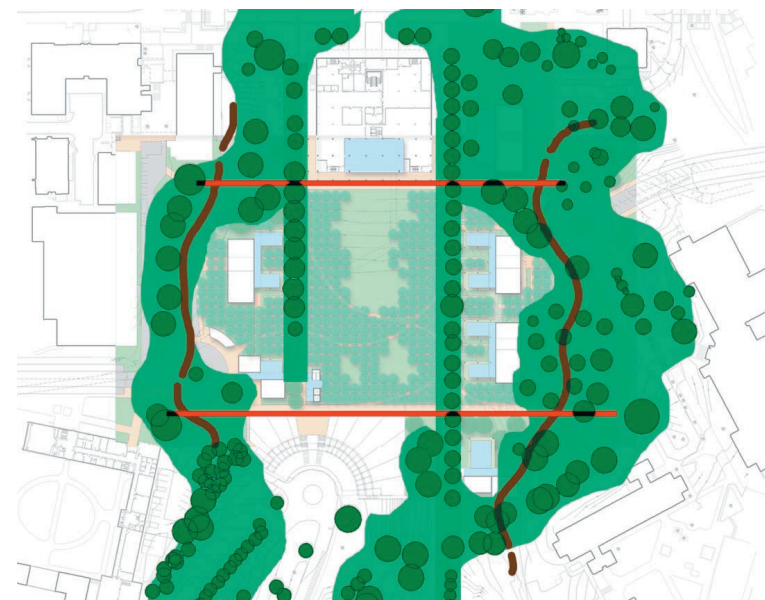
Section East-West



Existing Trees



Tree Zone



Orchard embedded in Campus Green



Campus Green envelopes precinct

Campus Green The zone of trees that defines the central Campus Green wraps around the new precinct ensuring the continuity of this prominent public space. The new buildings are located behind the existing rows of trees to make generous space for the central orchard.

Diversity of Spaces The buildings forecourts, defined by transparent pavilions with public functions, allow to bring the natural environment in close contact with the buildings while providing intimately scaled and welcoming entry spaces.

The varying scales and diverse functions of green open areas offer a rich fabric of spaces for a wide range of individual and collective uses. Open representative spaces for public events, such as the glade, are in close proximity to more private, secluded spaces that invite to study, dream and meditate.

Orchard A geometrical grid of 20' tall trees covers almost the entire precinct. Its scale, appearance and embedded uses give the precinct its primary identity and meaning. The orchard is a central "connective tissue" inviting for both formal and spontaneous uses to foster collaboration and contribute to the sense of community on campus.

A continuous canopy of leaves, provides pleasantly shaded light and intimacy for those who pass through or rest in it. The impact of the seasons can be emphasized by choosing a planting pattern in relation to the flowering color of the trees.

The orchard is reminiscent of Clemson's agricultural past, yet its openness and ever evolving appearance looks to the future.

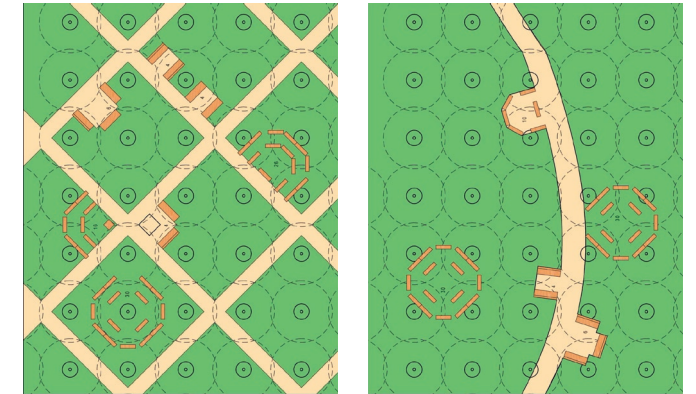
Glade A large central glade opens the views to the Cooper Library to provide a generous and representative public space. A new cafe in the Cooper Library's ground floor activates informal everyday uses and serves as a focal point. Smaller clearings in the orchard are more intimate in character and invite for informal social gatherings.

Paths A network of paths and differently sized meeting areas vitalize the orchard by linking the embedded pavilions and integrating them into the larger pedestrian circulation system. The paths open the intimacy of the orchard and invite the larger campus community to pass through and linger.

The existing rows of trees that project from both sides of Cooper Library link the forecourts and give the orchard scale and orientation.



Section through Flowering Orchard



Paths and Informal Gathering Areas: Design options



Organic Path Layout Option



Orchard



Orchard: Flowering Trees - Planting Options



Grid of Paths Layout Options

Glade



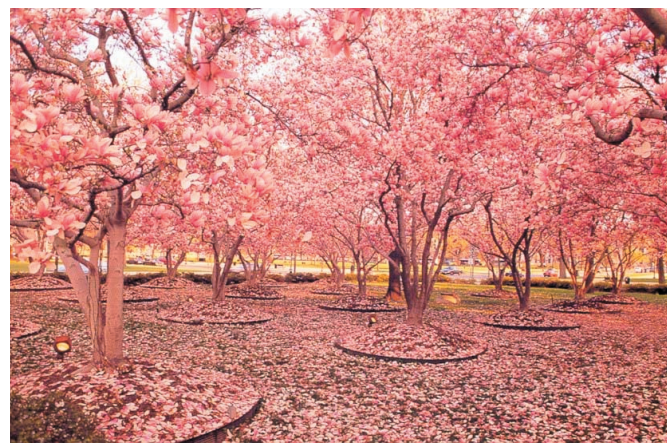
Pavillions in the Garden



Orchard Types



Orchard and the Seasons



Garden Paths

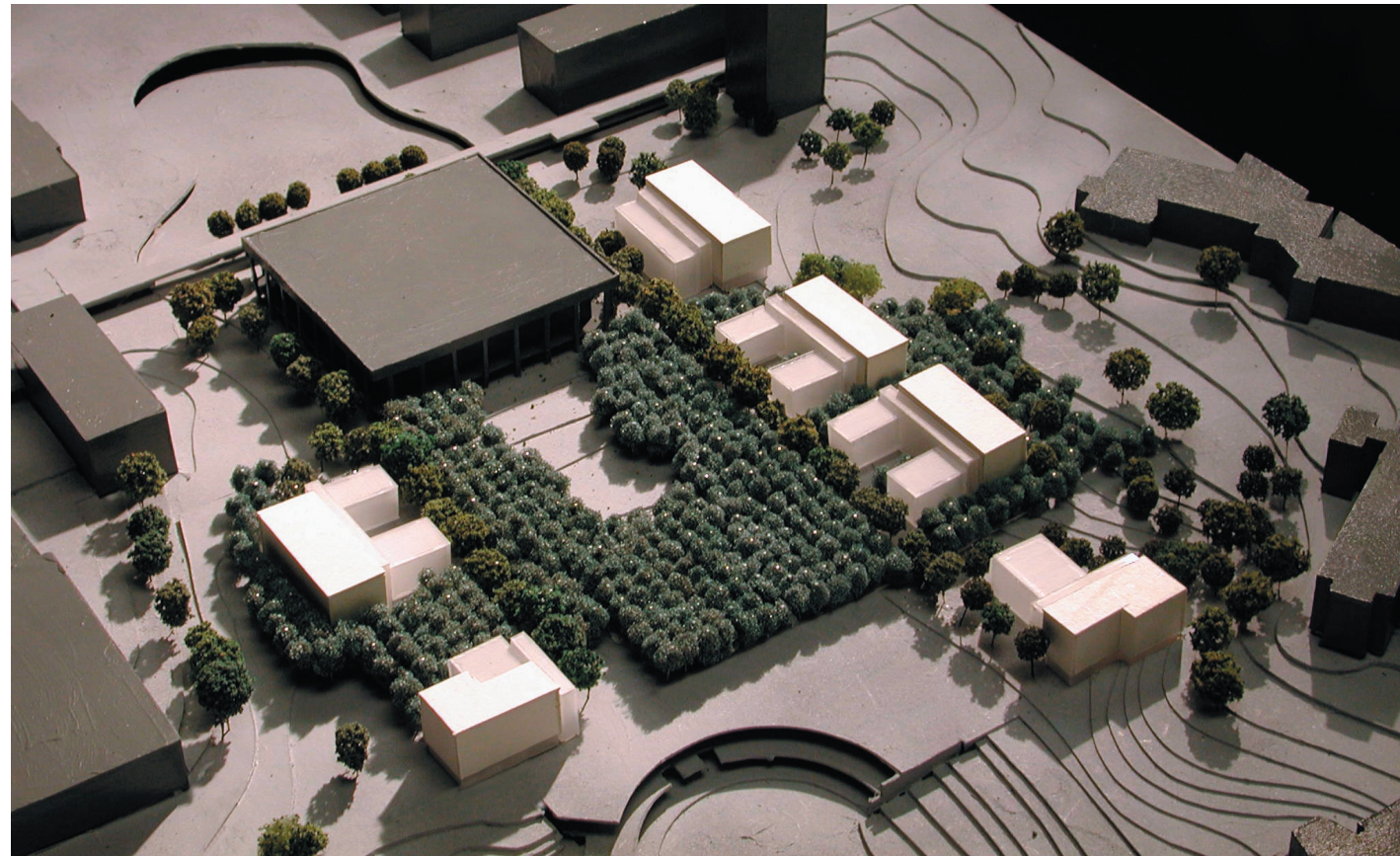


Water

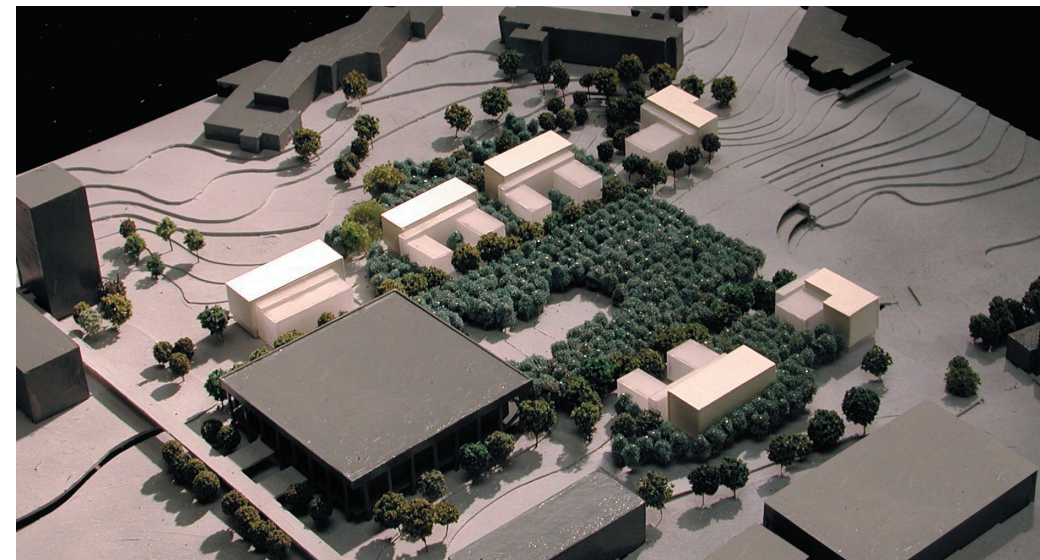
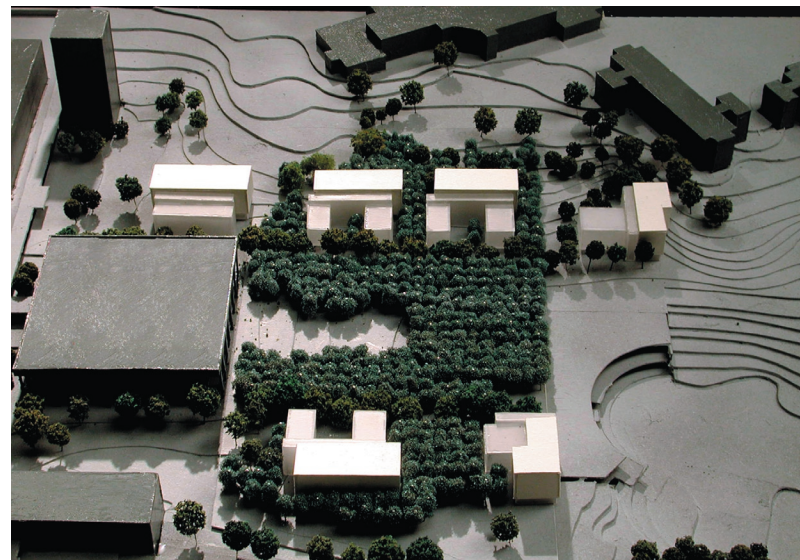


Orchard and Use





Massing The massing of the buildings reflects the small scale of the orchard, giving them a pavilion like appearance. Cooper Library remains the central focus of the precinct, with the pavilions in the background making space for the orchard. No building mass impedes the view to the South.



Model Views

Design Guidelines Architecture

The buildings should reflect the small scale of the precinct and be conceived as precious pavillions in the orchard.

Height The main volumes shall not exceed 3 stories, while the wings that form the entry courtyards can be 2 or 3 stories high. The stepping in height would be desirable to adjust the scale of the buildings to the tree canopy.

Footprint Maximum width for the main volumes (without the forecourts) is 40', maximum length of buildings is 100'.

Forecourts The forecourts are a key to spatially and functionally integrate the buildings into the orchard. The facades shall be open and welcoming, especially on the ground floor.

Ground Floor The ground floor shall house the representative and public functions. Visual continuity with the surroundings is desirable.

Materials The choice and use materials shall evoke the best buildings on campus. Brick with appropriately sized windows can be the departure point for design. The use of curtain wall systems or structural glazing on the lower wings is a possibility to achieve a high degree of transparency.

Roof The roof landscape shall tie all the buildings on the precinct together to create a sense of unity.

Design Guidelines Landscape

Plantings

- Avoid screening areas where pedestrians walk; maintain visual connections to improve security.
- Establish canopy trees of orchard for shading and future campus identity
- Whenever possible, use Indigenous plants – non-poisonous
- Protect mature and significant trees or stands of trees

Pathways

- General purpose paving – concrete walks
- Special paving at building entrances and pedestrian features – brick accented concrete, brick paving; to be coordinated with Clemson standards

Site Furniture

- Furniture elements shall be coordinated throughout the precinct:
 - o trash receptacles
 - o bike racks
 - o ornamental bollards

Benches

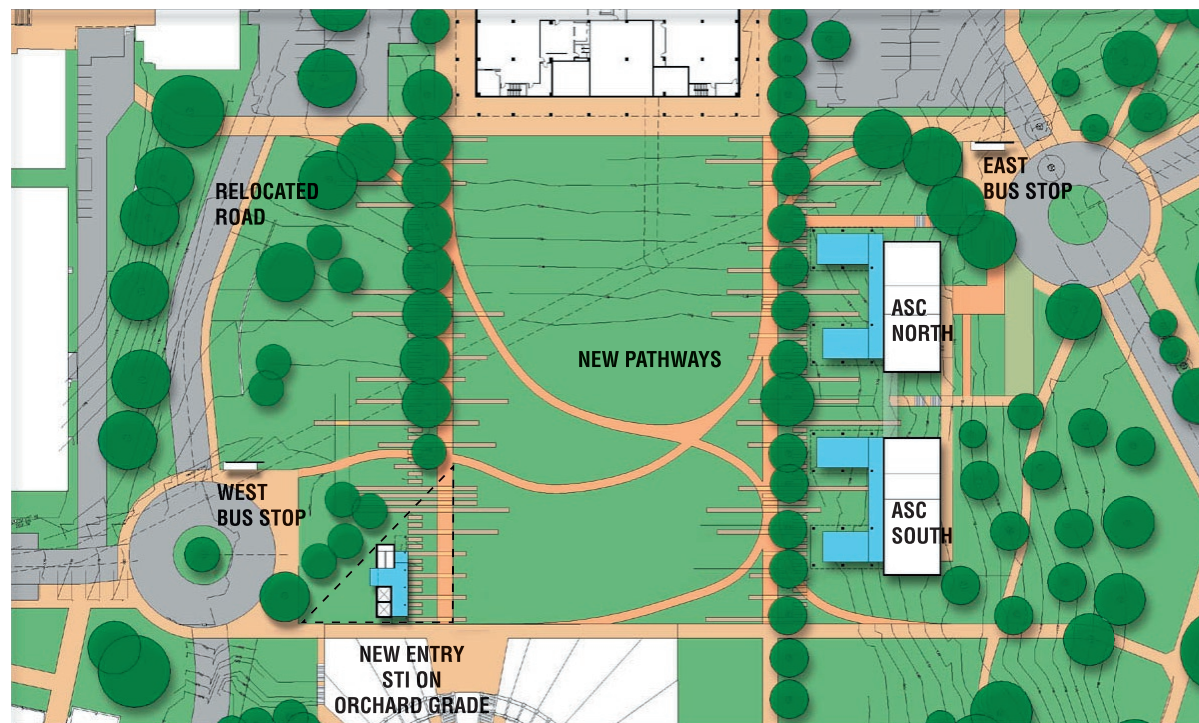
- Benches arranged in various configurations to create outdoor classrooms, informal gathering spaces and intimate spaces.

Lighting

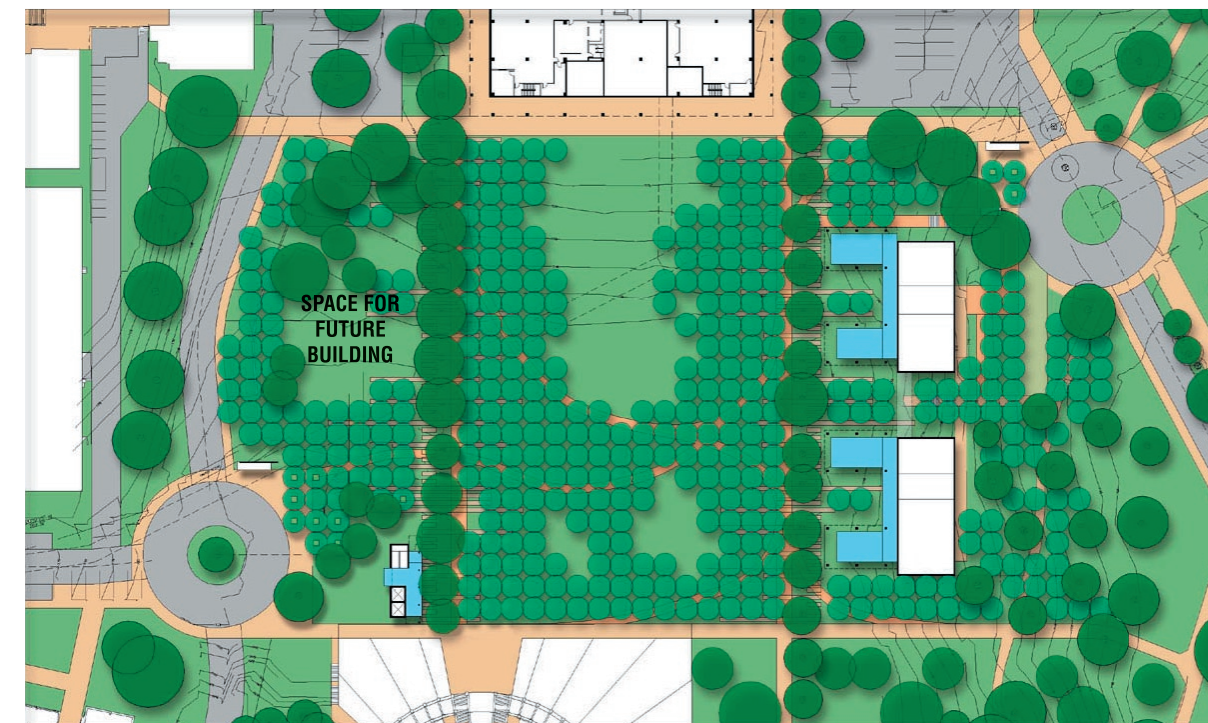
- Design general lighting levels to ensure pedestrian security and sufficient general illumination levels
- Limit light pollution
- Use show box high cut off fixtures.
- Selected accent lighting at architectural features only
- Provide appropriate levels of service dock lighting

Phase 1 The first step in implementing the plan consists of the two ASC buildings, the relocation of the road connecting to Rhodes Hall, the bus stops and new pedestrian pathways. A new entry pavilion for the Strom Thurmond Institute connects the building on grade with the orchard. The most important element of the first phase is the establishment of the Orchard.

Phase 1 - Orchard The orchard shall be planted leaving room for the future buildings. The image and appearance of the Center of Centers is already complete in this phase, allowing for a flexible schedule in constructing the remaining buildings. Outdoor amenities such as informal meeting areas can be phased in accordingly.



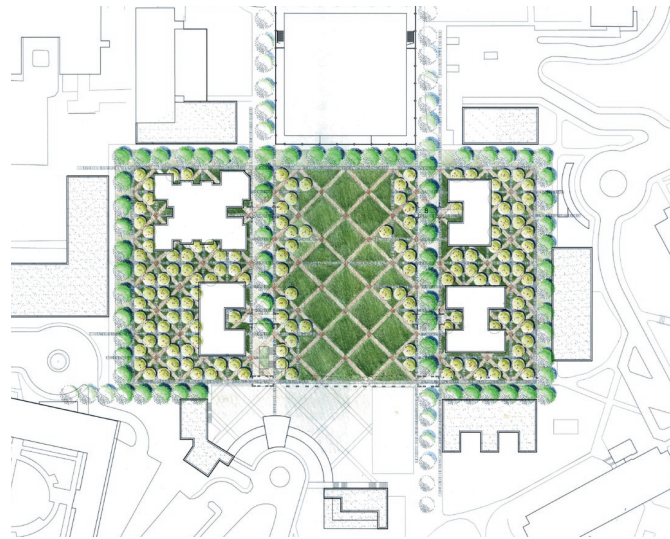
Phase 1 shown without orchard



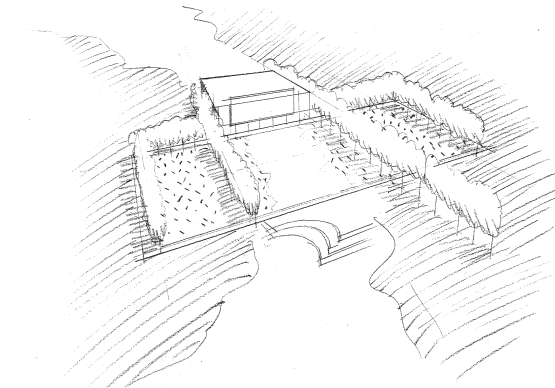
Phase 1 shown with orchard

APPENDIX

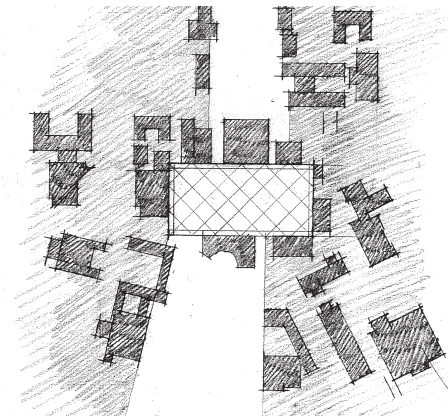
Preliminary Design Options	28
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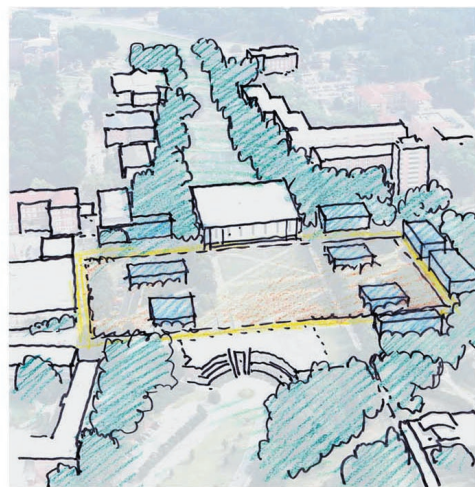
Competition Scheme August 2003



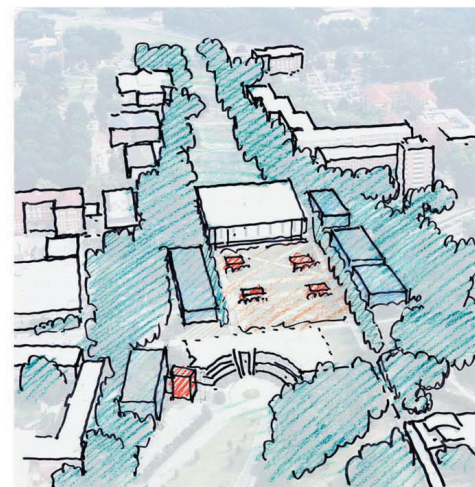
Sketch Studies



Preliminary Options 1 Early studies examined fundamental questions about the nature of the orchard and its integration into the Campus Green as well as building typologies.



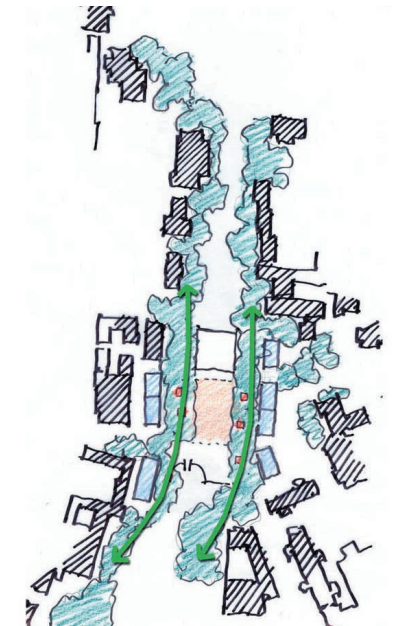
Competition proposal:
 Tree zone interrupted by "special green":
 Orchard

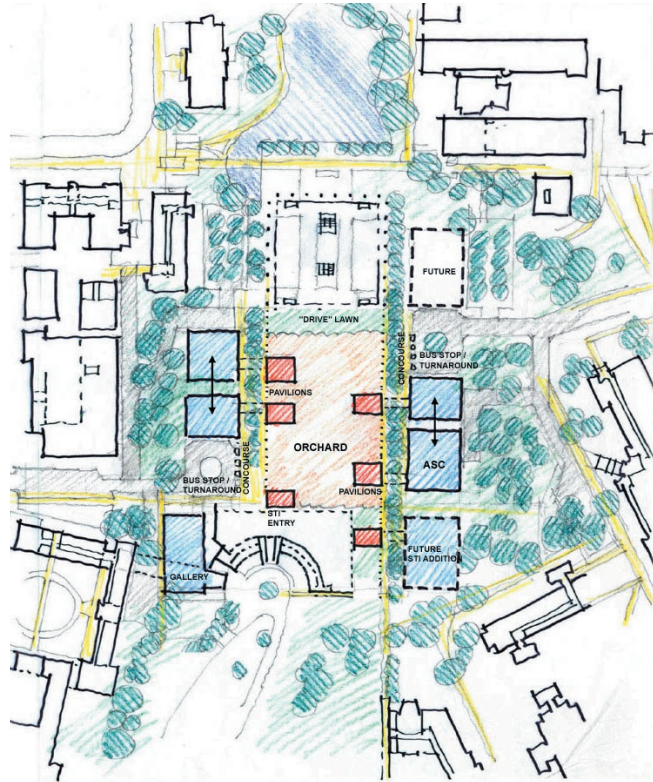


Center of Centers buildings and landscape
 reside in the clear; tree zone runs "behind",
 continuously North/South

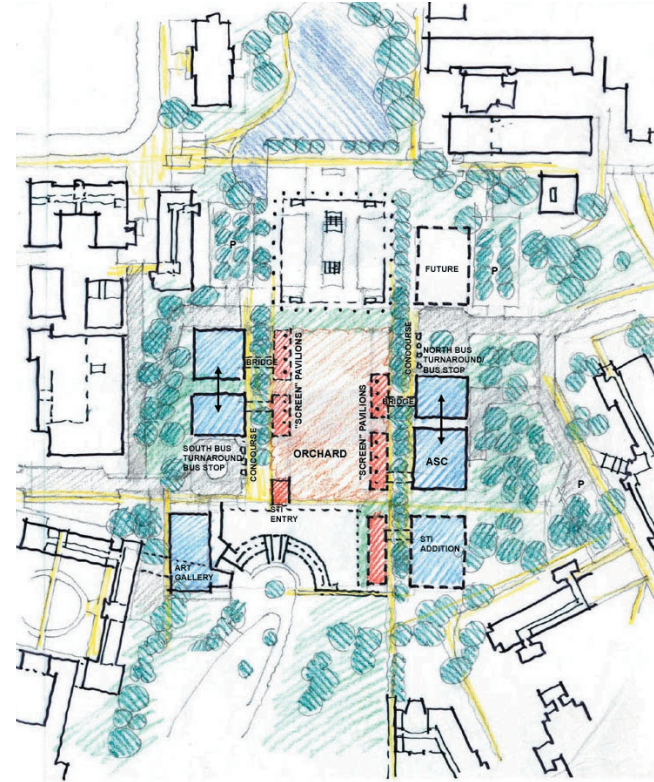


Tree zone runs North/South in front of the core buildings;
 pavilions reside in the tree zone;

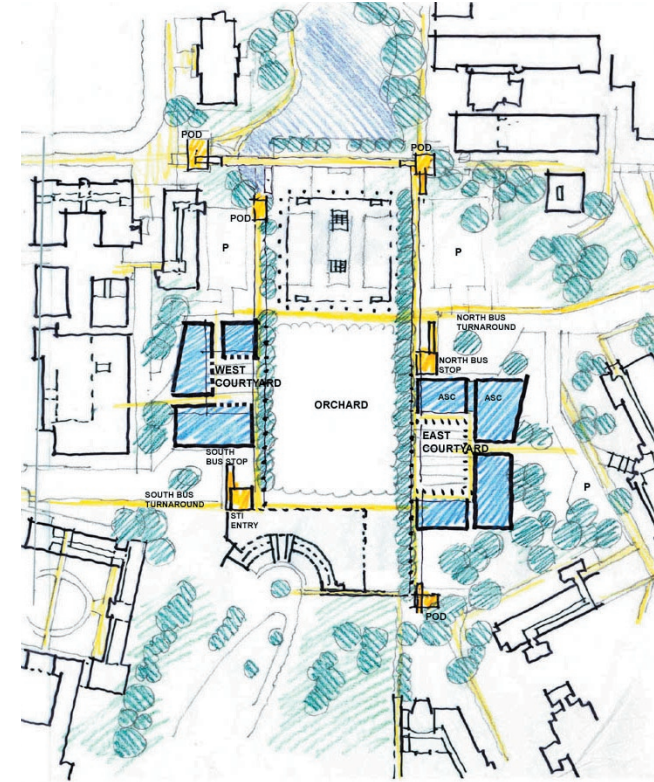




Core Buildings and Pavilions



Core Buildings and Screen

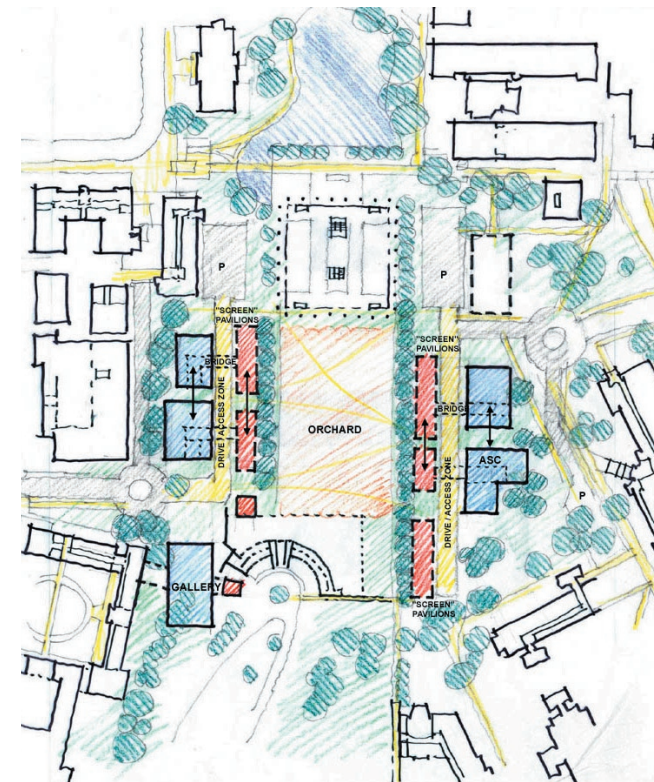


Courtyards

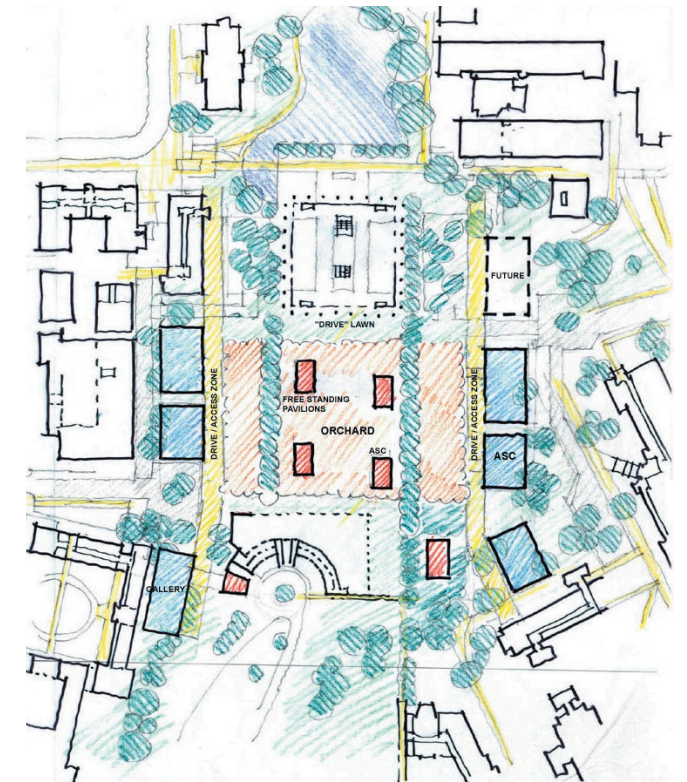
Preliminary Options 2 These options investigate the former themes at a finer scale and study alternative options of program distribution as well as the relationship between the buildings and open spaces.



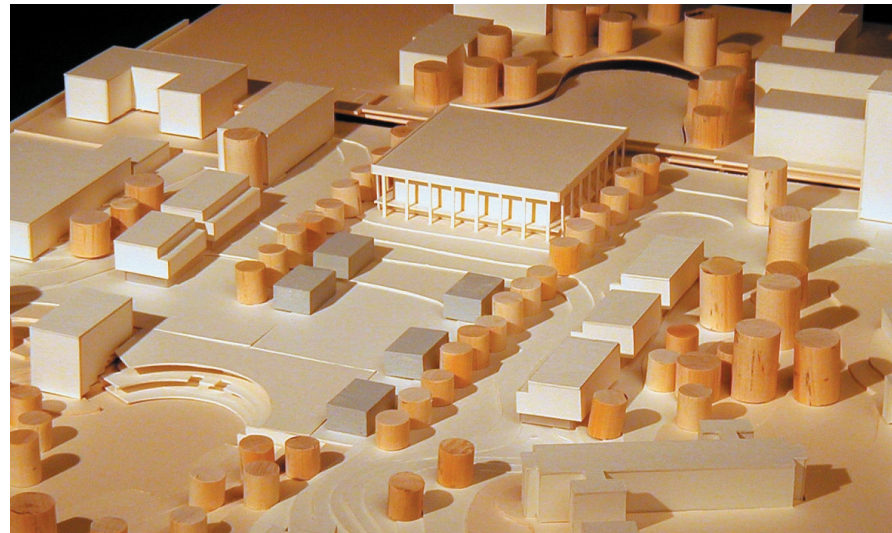
Pavilions in Tree Zone



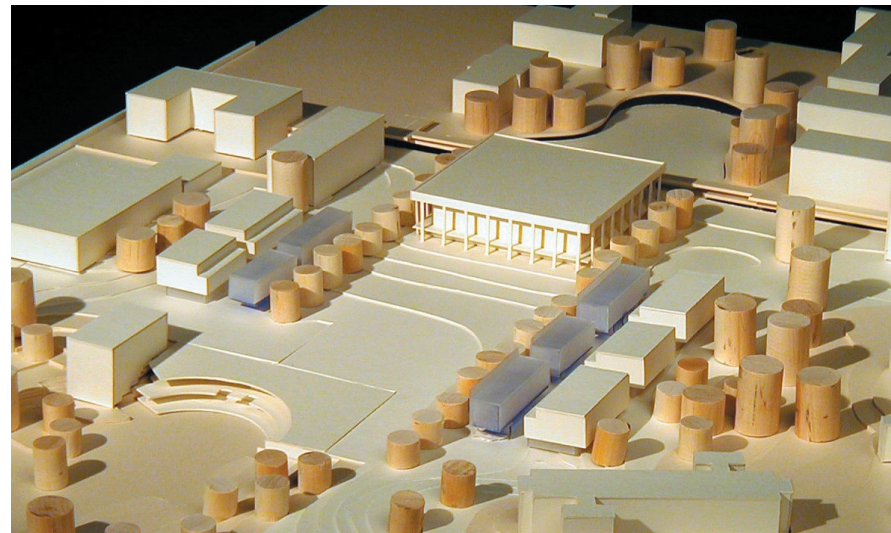
Screen behind Row of Trees



Free standing Pavilions in Orchard



Free standing Pavillions

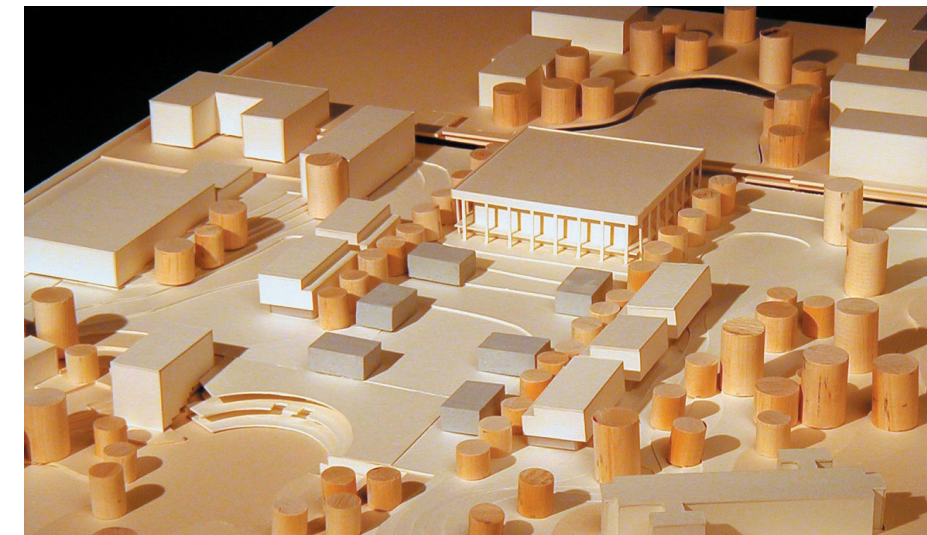


Screen Pavillions outside

Preliminary Options 2 Massing studies representing earlier schemes analyze their spatial configurations.



Screen Pavillions inside



Inner Pavillions



Preliminary Options 3 As an early alternate to the final scheme this plan calls for integrating one larger ASC building on the west side of the precinct.

ASC on West Side

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