



**NC STATE
UNIVERSITY**

CENTENNIAL CAMPUS

CELEBRATING 30 YEARS OF INNOVATION

NC State University's Centennial Campus: A Thirtieth Anniversary Celebration

North Carolina State University was founded in 1887 to meet the needs of the people of North Carolina for a "liberal and practical education in the several pursuits and professions in life" and to make contributions to the economic development of the state of North Carolina. As the people's needs have changed, NC State has changed, continuously evolving over 125 years to keep pace with the challenges and opportunities faced by an increasingly diverse citizenry in an increasingly technologically advanced and interconnected world. By building on our roots in "agriculture and the mechanic arts" and embracing excellence in a comprehensive range of disciplines, we have created an academic powerhouse devoted to discovering and applying innovative solutions to societal problems at the local, state, national, and global levels.



Jack B. Jordan, James Hunt, and Bruce Poulton celebrate the December 1984 land transfer



Original campus concept by Abie Harris, University Architect

Nineteenth-Century Land-Grant Roots

Prompted by the industrial revolution, nineteenth-century America began to shift its educational emphasis toward the nation's practical economic and industrial needs. In 1862 the "Morrill Land-Grant Act" directed that public lands or the proceeds of their sale be used to establish a general system of education that

[would] teach such branches of learning as are related to agriculture and the mechanic arts ... in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

At the urging of the Watauga Club, a group of progressive Raleigh professionals and businessmen, in 1886 the North Carolina Board of Agriculture agreed to locate an industrial school in Raleigh. In 1887 the North Carolina Legislature agreed to add an agricultural school to the Raleigh industrial school and to transfer the land-script funds to the benefit of the new college, to be called the North Carolina College of Agriculture and Mechanic Arts, the institution that eventually became North Carolina State University.



CALS Extension demonstration, 2014



Agricultural Extension demonstration, 1927

Congress passes the land-grant act

1862

First class enrolls

1889

State decides to dispose of Dix Hill

1983

Second transfer of Dix Hill land to NC State

1985

Legislature creates land grant college in Raleigh

1887

NC State analysis shows great space need

First transfer of Dix Hill land to NC State

1984

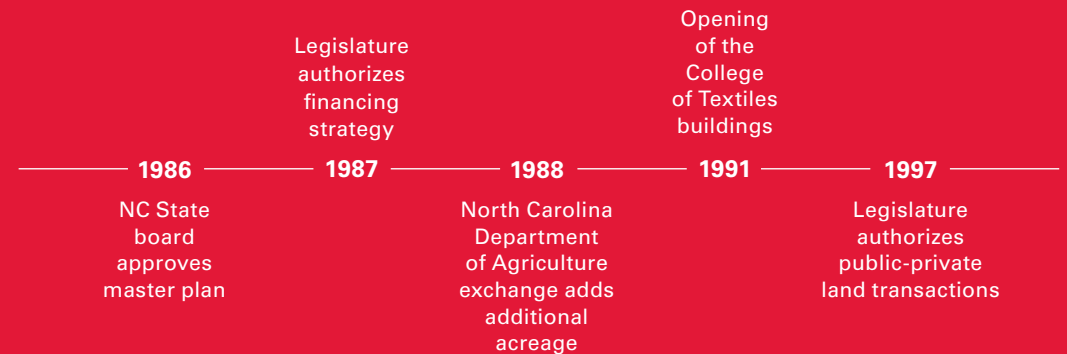
Growth and Development: The First Century

The North Carolina College of Agriculture and Mechanic Arts opened in October 1889 on land donated by the Pullen family of Raleigh. During its early years, the growth of the new college benefited from federal legislation directed at encouraging practical education. The Hatch Act of 1887 provided funding for basic and applied research by establishing agricultural experiment stations. The Smith-Lever Act of 1914 provided funds for land-grant institutions to offer educational and demonstration programs through cooperative extension programs. By 1917, enrollment had grown to over 400, and the name of the institution was changed to North Carolina State College of Agriculture and Engineering.

After World War II, a dramatic influx of students transformed all of higher education. In 1947, over 5,000 students, double the pre-war total, enrolled for classes at State College, and these students demanded greater variety in academic offerings. By the mid-1960s, "State College" had become a university not only in function and mission, but also in name: North Carolina State University. No longer just a "technological university," NC State had become a comprehensive university with the earlier technological and agricultural emphasis balanced by depth and breadth in the social sciences and humanities. In 1978 NC State was classified by the Carnegie Foundation as a Research I public university, one of only two in the state.



First freshman class at Holladay Hall, 1890.





Aerial of Centennial Campus land before development, 1987

The Second Land-Grant: NC State's Centennial Campus

By the 1980s, NC State University was bursting at the seams. When Chancellor Bruce Poulton took the reins in 1982, NC State had the largest enrollment of any university in the state. Of the 80,000 NC State graduates since the university's founding, over half had graduated since 1970. The state had pressing economic interests in developing fields in which NC State excelled: engineering, computer science, textiles, agriculture etc. But the size of existing facilities limited how many qualified students NC State could admit. The existing NC State campus was blocked from expanding on the east, north, and west by fully developed property. The only possibility for expansion was to the south, but in that direction lay an interesting possibility.

In 1983, when the state-owned Dorothea Dix Hospital property southeast of the NC State campus began to vacate, the N.C. State Property Office sought input from potential users for the vacated land. In September 1983, Chancellor Poulton wrote to Governor James B. Hunt (copying UNC President William Friday) to explore the possibility that NC State University might acquire the use of part or all of the vacated Dix property.

In June 1984, the North Carolina Council of State recommended that the General Assembly transfer the 360 acres of the Dorothea Dix property previously allotted to the Farm Commission to North Carolina State University "to be used exclusively for educational and research purposes as may be approved by the Board of Trustees." The allocation was finalized on June 5, 1984.

Adding Acreage

Contiguous to the land in the 1984 transfer was additional acreage on the Dix property that had been allotted to the Farm Commission and to the Department of Human Resources. Although this acreage, too, was designated for transfer to NC State, the reallocation proved to be controversial. There were three major competitors for the use of the property: the N.C. Department of Agriculture, the City of Raleigh, and North Carolina State University. As a result, final-use allocation of the additional acreage was not resolved at the time James Hunt left the North Carolina governorship in January 1985 and Dr. James Martin took over.

The day after Governor Martin's inauguration, at a meeting of the governor's Executive Cabinet, the governor requested that Attorney General Lacy Thornburg seek resolution of matters involving the Dix property. The solution was an agreement to reallocate the land in a manner that would accommodate the needs of all competing parties. In this agreement, NC State received an additional 400 acres of the available Dix property.

Although the exact details of the transfer of land would not be finalized until June 1987, on February 5, 1985, the Council of State unanimously approved the reallocations, and Governor Martin recommended that "with the reallocations the departments and the University could plan for their use accordingly." On February 16, 1985, the NC State Board of Trustees adopted a resolution accepting stewardship of the Dix property.

Eventually, with the acquisition of an addition 140 acres allotted to the Department of Agriculture and the purchase of 80 acres from the Catholic diocese, the land allocated to NC State's Centennial Campus totaled almost 1,000 acres.

"The Centennial Campus added a fourth dimension to the trinity of teaching, research, and extension: partnerships with the private sector in pursuit of the public good."

*Bruce R. Poulton,
NC State Chancellor, 1982-89*

Developing a Master Plan

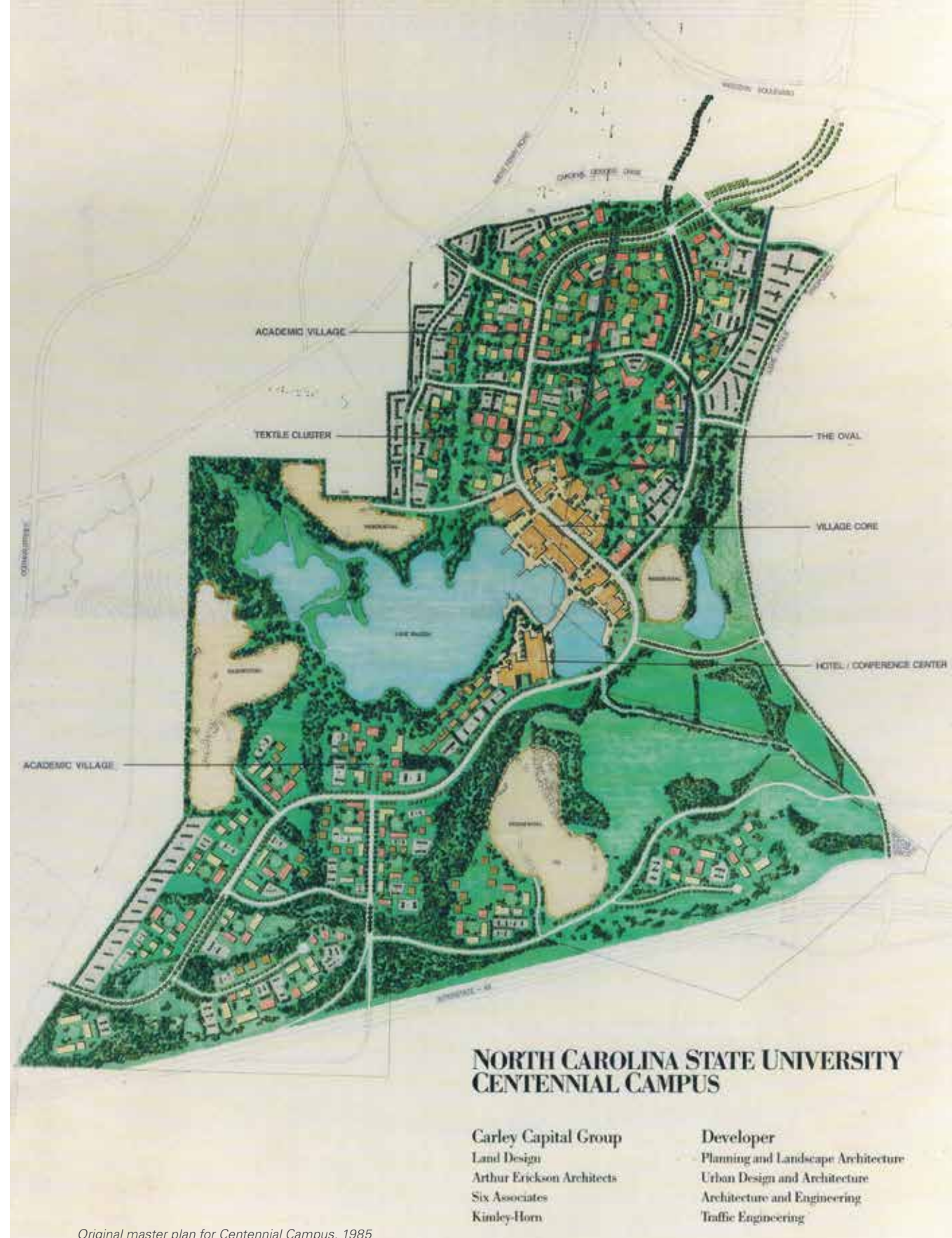
Having been granted the governor's permission to plan for the development of its new property, NC State University constituted a fourteen-member advisory board, whose first task was to consider how the institutional mission of the past hundred years would change in the next hundred. In many ways the future NC State University would be greatly different than the past, but its traditions and commitment to meeting the needs of the people of the state of North Carolina would remain constant.

In the past, the institutional emphasis had been on teaching and undergraduate study; in the future, the emphasis would shift to research and graduate study. In the past, NC State had been almost totally dependent on state appropriations for funding, but in the future the institution expected to see a much broader revenue base from industry, research institutes, foundations, government agencies and laboratories, gifts from individuals, returns from venture capital etc. To meet the changing needs of the people of North Carolina and the nation, in the future the institution would put greater emphasis on technological development and applications.

Having settled the direction of the mission, an essential next step in planning was gathering input from the NC State faculty. The chancellor distributed a request for proposals that encouraged faculty and staff to submit ideas for new or additional programs of teaching, research, and scholarship to the University Planning Committee.



Claude McKinney, John Kanipe (VC for Development), and Beth McGee (Asst. to Chancellor) examine early plans, ca. 1985



Original master plan for Centennial Campus, 1985



Monteith Hall, Odell Associates rendering

1989

Research I
41,254 sq ft
\$5.7 M

1991

College of Textiles
295,000 sq ft
\$32.7 M

1991

Poulton
Innovation Center
79,374 sq ft
\$6.2 M

1992

Research II
46,122 sq ft
\$6.4 M

1993

Research III
25,977 sq ft
\$3.5 M

1996

Research IV
82,279 sq ft
\$7.7 M

1996

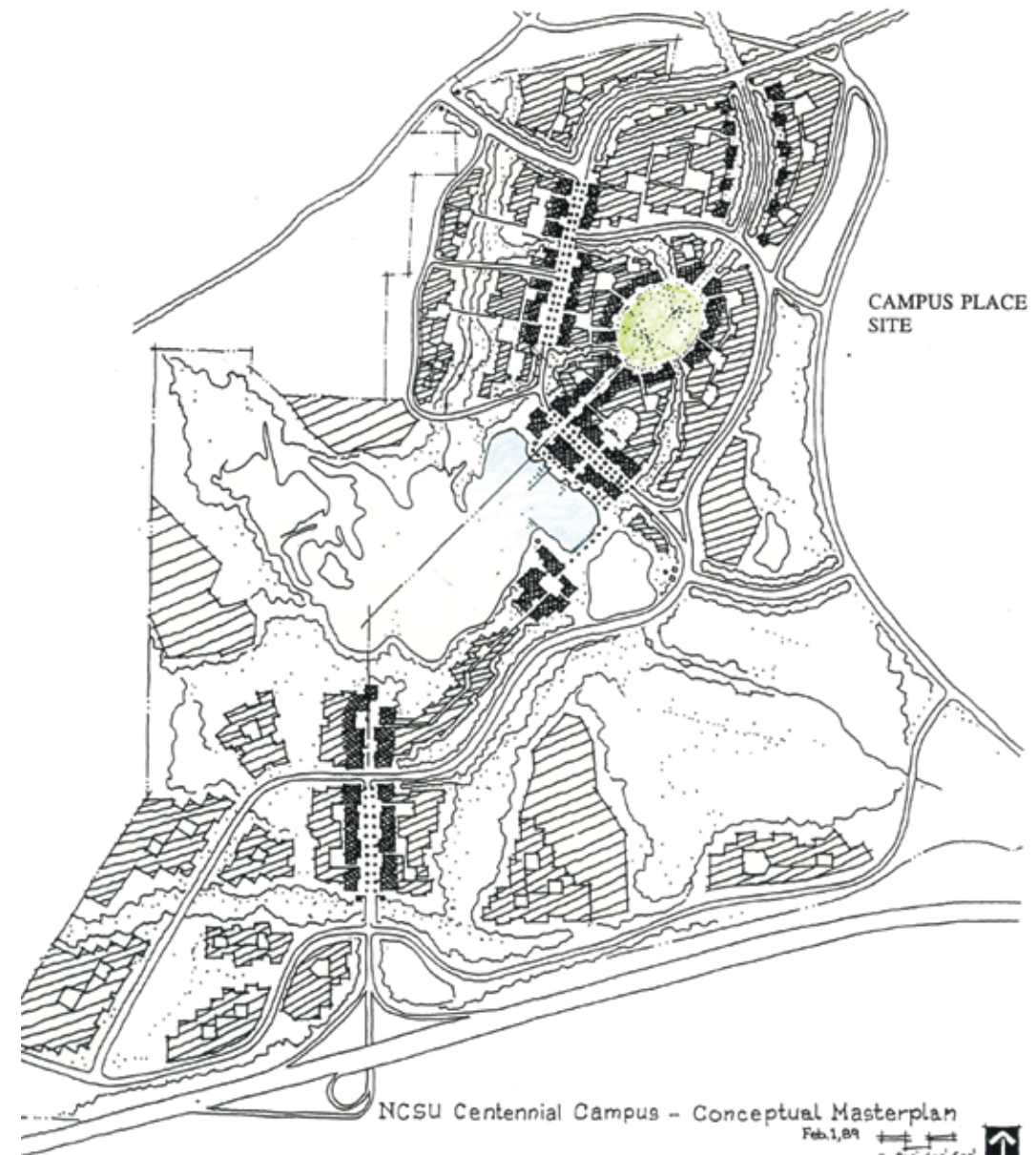
Partners I
81,373 sq ft
\$9.1 M

In response to this RFP, the UPC received eighty-three proposals, and many less formal proposals were received in response to presentations at faculty and staff meetings. This response was much greater and more creative than anticipated and formed an initial platform on which to initiate a comprehensive start for the eventual master plan for Centennial Campus. When it became evident that research along with technology applications was to be the primary engine driving the growth of Centennial Campus, the leadership role for expanding programs of research and development fell to Vice Chancellor Frank Hart and his Research Operations Council.

Deciding that a logical next step was to hire a professional firm to develop a campus master plan for Centennial Campus, the Advisory Committee passed this recommendation through NC State Board of Trustees to the UNC Board of Governors, which approved the request in July 1985. In April 1986, the NC State Board of Trustees reviewed the master plan submitted by Carley Capital Group. After an in-depth discussion the trustees gave their unanimous "approval to the preliminary plan for the Centennial Campus in principle." This scope of approval in principle was detailed to include: approval of the concept of multiplicity of use, clusters or neighborhoods, provision of green space, use of topography of the land, appropriate scale of buildings, and dovetailing with city and state planning.



The Oval and Town Center, sketch by Abie Harris



Master Plan Study, Rainer Fassler, Arthur Erickson, Architects

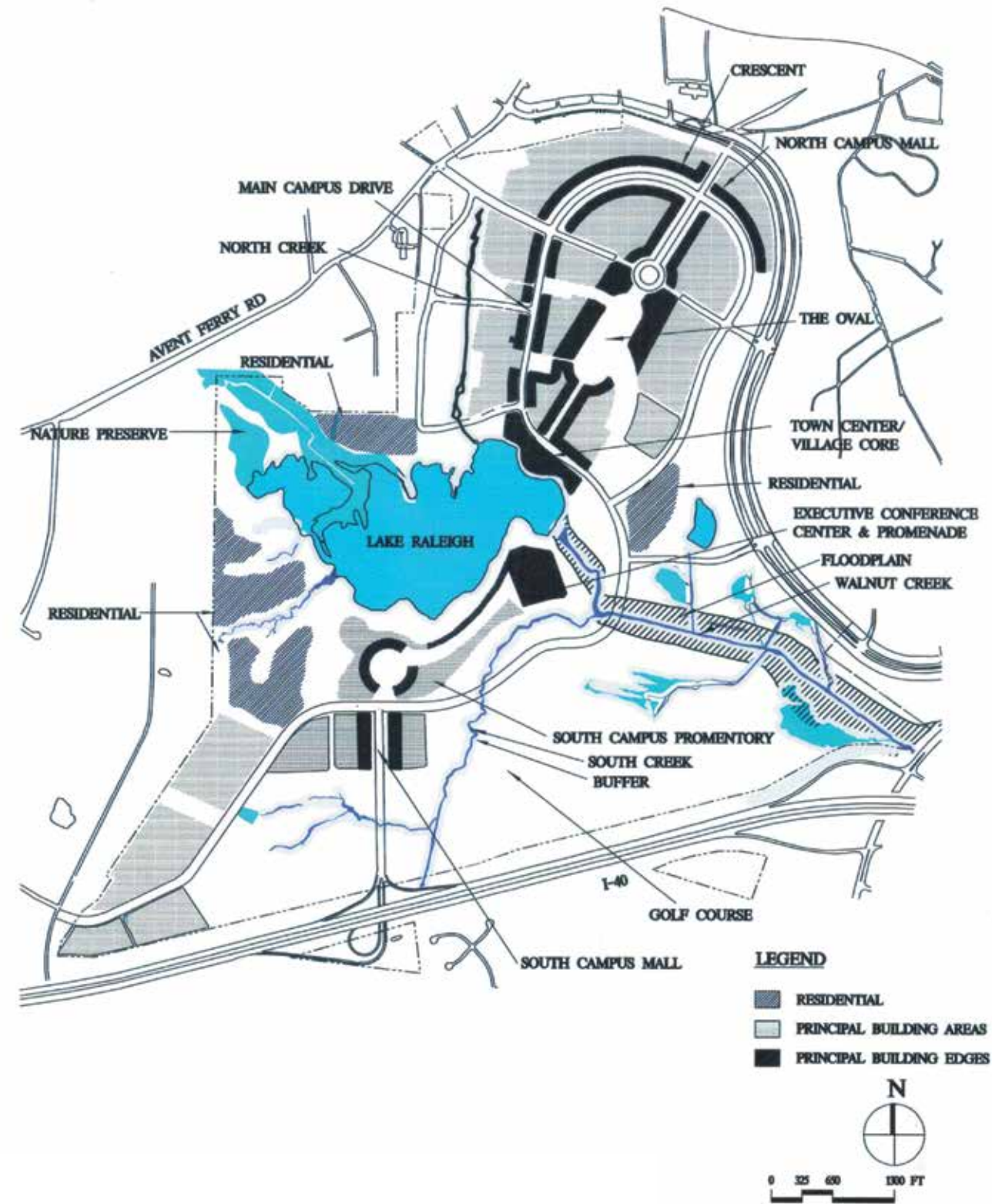
On January 9, 1987, a major item on the agenda of the regular session of the UNC Board of Governors was to move on the adoption of the report from the BOG's Special Committee on the Centennial Campus. The report was lengthy and contained a number of actions and proposals that were critical to establishment of future directions for the continued development of the new campus and approvals of action concerning approvals for siting and using new buildings. Actions recommended by the Board of Governors Special Committee included:

- > interim approval to the land-use master plan proposed for the Centennial Campus;
- > endorsement of the site and construction for both the College of Textiles buildings and the Research One building;
- > endorsement of the planning for housing of married students on the Centennial Campus;
- > authorization for the preparation of legislation to allow issuance of revenue bonds for Centennial Campus projects, and legislation that would allow dedication of revenues and or receipts generated by the development of Centennial Campus projects to the use of North Carolina State University for operations and for the further development of Centennial Campus.

On June 2, 1987, Governor James Martin and the Council of State conducted a formal review of the proposed Carley/ NC State University master plan for the Centennial Campus. Following this comprehensive review, the Council of State unanimously approved and adopted the master plan.



Jerry Whitten (Dean of PAMS), Claude McKinney, Ralph Cavin (Electrical Engineering), and Larry Monteith (Dean of Engineering evaluate site model for EGRC (now Monteith Research Center), January 1991



Master Plan showing Character Areas

- 1997**
Monteith Research Center
136,507 sq ft
\$37 M
- 1997**
Constructed Facilities Laboratory
31,265 sq ft
\$8.4 M
- 1999**
Partners II
63,760 sq ft
\$13 M
- 1999**
Venture I
110,000 sq ft
\$12.5 M
- 1999**
Venture II
110,000 sq ft
\$12.5 M
- 2000**
Magnet Middle School
121,000 sq ft
\$14 M
- 2000**
1801 Varsity
120,000 sq ft
\$18 M

Funding and Administration

- 2000**
Toxicology Building
60,769 sq ft
\$14 M
- 2000**
Venture III
115,000 sq ft
\$12.5 M
- 2001**
Venture Place
25,000 sq ft
\$3.5 M
- 2004**
Venture IV
105,000 sq ft
\$13.5 M
- 2004**
Central Utility Plant
34,454 sq ft
\$16.1 M
- 2004**
Partners II
Greenhouses - Phase I
1,575 sq ft
\$350 K
- 2004**
Engineering Building I
161,217 sq ft
\$32.9 M

The Centennial Campus Advisory Committee quickly determined that every new Centennial Campus program or project had to be on a “pay as you go” or self-liquidating basis. Discussions with the Council of State and General Assembly confirmed that funding would have to come from multiple sources including, but not limited to, state appropriations; revenue bonding; dedicated revenues from NC State operations; and self-funding from research facilities and administration receipts included in grants and contracts from funding agencies like National Science Foundation, Office of Naval Research, National Aeronautics and Space Administration, National Institute of Health, etc.

In matters of policy and procedures the development of Centennial Campus would flow from the NC State administration to the NC State Board of Trustees, then to UNC Board of Governors, and if required, the governor and the Council of State, serving as the executive committee for the General Assembly.

Day-to-day decision making was delegated to the Centennial Campus Committee, led by the chancellor, the vice chancellor for finance and business, the vice chancellor for research, and the dean of the School of Design, who eventually became assistant to the chancellor for Centennial Campus.



College of Textiles PyroMan™ demonstration, 2012



Centennial Campus with City of Raleigh in background, 2014

“A critical factor in the success of Centennial Campus has been the strategy of encouraging development opportunities to follow the infrastructure investment.”

*George Worsley,
Vice Chancellor for Finance and Business, retired*



Golf Course on Centennial Campus, 2009

2004

Partners III
79,847 sq ft
\$18.3 M

2005

Friday Institute
36,986 sq ft
\$8.8 M

2005

Wildlife Resources
Commission Building
72,500 sq ft
\$14.2 M

2005

Engineering Building II
202,476 sq ft
\$39.6 M

2006

Park Alumni Center
58,313 sq ft
\$15 M

2007

Biomanufacturing Training &
Education Center
82,500 sq ft
\$35 M

2009

Lonnie Poole Golf Course
0 sq ft
\$9.3 M

Bricks and Mortar and Open Space

NC State's goal was to have one campus, not two, and if possible a single point of access to Centennial. Fortunately, NC State's Varsity Drive could be extended across Avent Ferry and directly onto Centennial Campus, thus achieving one contiguous campus.

The next challenge was to select a site for the construction of a research facility for two of NC State's most active centers, the Precision Engineering Center and the Advanced Electronic Materials Center. Siting was developed under the leadership of Dean Claude McKinney, who stressed mixed-use development. A cluster of about 30 acres would be designated to include a mix of corporate and university scientists working together, as well as those from government laboratories. Classrooms and laboratory spaces for undergraduate and graduate students along with space for supporting services were to be available for research and technology development. Greenways, walkways, and open areas were to be woven throughout the cluster.

This approach to development was adapted to the overall master plan. Echoing the design of the main campus, with academic buildings surrounding the Court of North Carolina, each cluster of academic buildings would surround a green open space.



Oval Drive with Wolf Ridge under construction, 2012

2010
Engineering Building III
242,000 sq ft
\$55 M

2010
Keystone
Science Center
78,000 sq ft
\$21 M

2011
The Point
Chancellor's Residence
8,500 sq ft
\$3.5 M

2012
Hunt Library
253,000 sq ft
\$115.4 M

2013
Carol Johnson Poole
Clubhouse
17,000 sq ft
\$5 M

2014
The Greens at Centennial
(292 units)
300,000 sq ft
\$28 M

2014
Student Housing
(1195 beds)
530,000 sq ft
\$129 M

The Evolving Land-Grant Vision

North Carolina State University is not the same today as it was yesterday, and it will be different again with each tomorrow. As the world has changed, NC State has adapted and evolved, but it has always stayed true to its core mission of promoting social, economic, and technological development across North Carolina and around the world.

In 1984, on the eve of its centennial, NC State was provided with a unique opportunity to extend and fulfill its mission in new and innovative ways. The second land-grant that became Centennial Campus is home to a unified community of faculty, students, and external partners who collaborate to address local, state, and global problems. Combining extraordinary potential and vision, NC State's Centennial Campus has played an integral role in helping NC State adapt its land-grant mission to the needs of the 21st century.

On this 30th anniversary of the founding of Centennial Campus, it stands as an unparalleled hub of innovation that continues to draw upon the strength of the early ideas of partnership and collaboration.



Students in front of Hunt Library, 2013



Natural areas of campus leading to Lake Raleigh, 2014

“This university is forever indebted to NC State’s leaders of the 1980s for their bold vision and tireless efforts in creating Centennial Campus. Their vision is now being realized as NC State’s Centennial Campus has become renowned across the nation and beyond for its innovation, partnerships and intellectual excitement.”

Chancellor Randy Woodson

38+

Building Projects

3.8+ Million

Square Feet of Space

\$781+ Million

Building Cost
(as of March 1, 2015)

*Centennial Campus looking
south toward Lake Raleigh*



NC STATE UNIVERSITY

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The content of this brochure is based on a monograph written by Bruce Poulton, chancellor of NC State University from 1982-89. The full text, "The Story of the Concept and Planning of the Centennial Campus of North Carolina State University," is available in the University Archives. Images on pp. 2, 4, 7, 8, 10, and 14 courtesy of NC State University Libraries, Special Collections Research Center. Cover image and images on pp. 3, 16, and 20 by Marc Hall /NC State University. Images on pp. 5, 17, 18, 19, 21, and 22 by Roger Winstead/NC State University. Images on pp. 3, 11, 12, 13, and 15 supplied by Abie Harris.

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