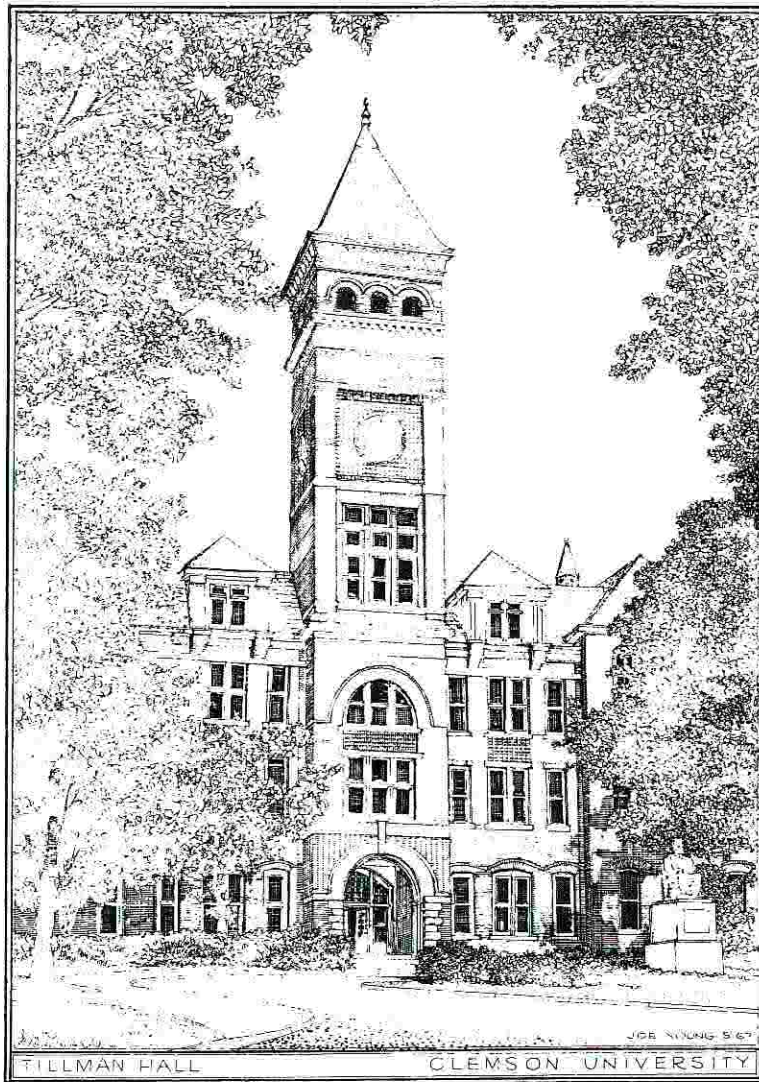


CLEMSON UNIVERSITY

PLAN AND GUIDELINES FOR RESTORATION, REHABILITATION AND MAINTENANCE OF HISTORIC RESOURCES



Clemson University
College of Architecture, Arts and Humanities
Department of Planning and Landscape Architecture
August, 1995

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AUTHOR'S NOTE

As the Principal Investigator for the project and principal author of the report, I take full responsibility for any errors, omissions or inaccuracies in the final document. I do want to thank the entire project team and the staff of the South Carolina Department of Archives and History for their support throughout the project. Dan Elswick, Will Hiott and Gerald Vander Mey provided thorough readings and insightful and occasionally devastating responses to the report draft, resulting in a much better final document. My wife, Dr. Judith Bainbridge, thoroughly reviewed the work in progress both for content and to make sure that the report was written in reasonable English. Professor Martin Davis, Dr. Alan Schaffer and Zach Watson Rice provided critical information as well as enthusiasm and a commitment to the ideals of historic preservation. Steven L. Chambers, Ph. D. of the University of Northern Arizona and James Murray Howard, AIA, Ph. D., Curator of Thomas Jefferson's Academical Village at the University of Virginia provided inspiration through their efforts at preservation on their own campuses. James F. Barker, FAIA, Dean of the College of Architecture (now Architecture, Arts and Humanities), and Professor Jose Caban provided support from the earliest days of the project.

Monique Swinger Mattison did much of the legwork in the early phases of the project, and helped make the rest of the effort possible. Mike Kohl and Sue Hiott provided great assistance in searching historic records in the Special Collections at the Strom Thurmond Institute.

Back in August, 1994, I began the project with a call to Robert Geibner at the University of Arizona, a long-time preservation leader and a pioneer in campus preservation. During the course of the project, Professor Geibner passed away. This report is dedicated to his memory as a way of carrying on the tradition that he began.

Robert W. Bainbridge

August 14, 1995

BACKGROUND AND INTENT

The purpose of the **Plan and Guidelines for Restoration, Rehabilitation and Maintenance of Historic Resources** is to provide a tool to preserve and protect the buildings, landscapes and objects that represent and reflect the architectural and cultural heritage of Clemson University as a part of the living fabric of the campus. The historic resources provide a connection to the past for faculty, employees, students, alumni, and the general public. They are essential to alumni development, student recruitment, and to the public image of the University, and help to define a sense of place. Preservation of the resources is a physical covenant that reinforces the educational covenant stated by Thomas Green Clemson in his will that Clemson should be “a high seminary for learning.”¹

The plan and guidelines are the result of a year-long study funded in part by a Federal Survey and Planning Grant from the Department of the Interior administered by the South Carolina Department of Archives and History. The research included national case studies in campus preservation and research on the growth of the Clemson campus and the role of Rudolph E. Lee which culminated in a major seminar held in March, 1995.² The proceedings of the seminar are, in a sense, a companion volume to these design guidelines. The research was also informed by the process and recommendations included in Clemson University Historic District Site Design Guidelines prepared in 1993.

While the following document is complete, it is intended to provide a framework that can be adopted, tested and modified over the coming years. It is hoped that it can provide a strong but flexible approach that can assist in preserving Clemson’s historic resources for many generations to come.

¹ Remarks by James F. Barker, AIA, Dean of the College of Architecture, Arts and Humanities at the **Seminar on Campus Preservation and Clemson Historic Resources**, Clemson House, March 31, 1995.

² For details, see: Robert W. Bainbridge, Ed. **Seminar Proceedings: Campus Preservation and Clemson Historic Resources**. Clemson, SC: Clemson University College of Architecture, Department of Planning and Landscape Architecture, May 1995.

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Additional guidance was provided by James F. Barker, FAIA, Dean of the College of Architecture; Professor Jose Caban, Head of the Department of Planning and Landscape Architecture; Dr. Alan Schaffer of the Department of History; and Professor Martin Davis of the Department of Architecture.

THE CHARACTER OF THE CLEMSON CAMPUS

Clemson College was established in 1889, when, following the terms of the will of Thomas Green Clemson and with the leadership of Governor Benjamin "Pitchfork Ben" Tillman, a land-grant college was established on the Fort Hill property that had been home to Thomas Green Clemson and his father-in-law, John C. Calhoun. The campus was erected quickly and opened in July 1893 as a military college with fifteen faculty members and 446 students.

Although Clemson was not among the early land-grant colleges, it opened at a time when these institutions were expanding across the country. Its "Old Main" (Tillman Hall), early campus buildings, depression-era structures, and later expansions are similar to those at other land-grant campuses across the country. The presence of Fort Hill on the campus, however, provides Clemson with a unique historical resource: it is a National Historic Landmark significant because of John C. Calhoun's importance as one of the leading statesmen of the antebellum period. He served as Vice-President of the United States under John Quincy Adams and Andrew Jackson (1825-1832), Secretary of War under James Monroe (1817-1825) and Secretary of State under John Tyler (1844-45). The property has been restored as a house museum and attracts interest in Clemson from historians and preservationists across the country.

Although all early barracks of the military college have been demolished, many early campus structures as well as the buildings Rudolph E. Lee designed remain to provide memories and connections with all eras of Clemson's development. Many of these resources have been recognized through listing on the National Register of Historic Places. While some buildings have been greatly modified and there has been some erosion of historic character, much of what remains is solid, and some past damage can be repaired. It is the purpose of this document to guide this process. The first step is to define the historic resources and explain their importance to the overall character of the campus. The resources are shown on the following map and then described in further detail.

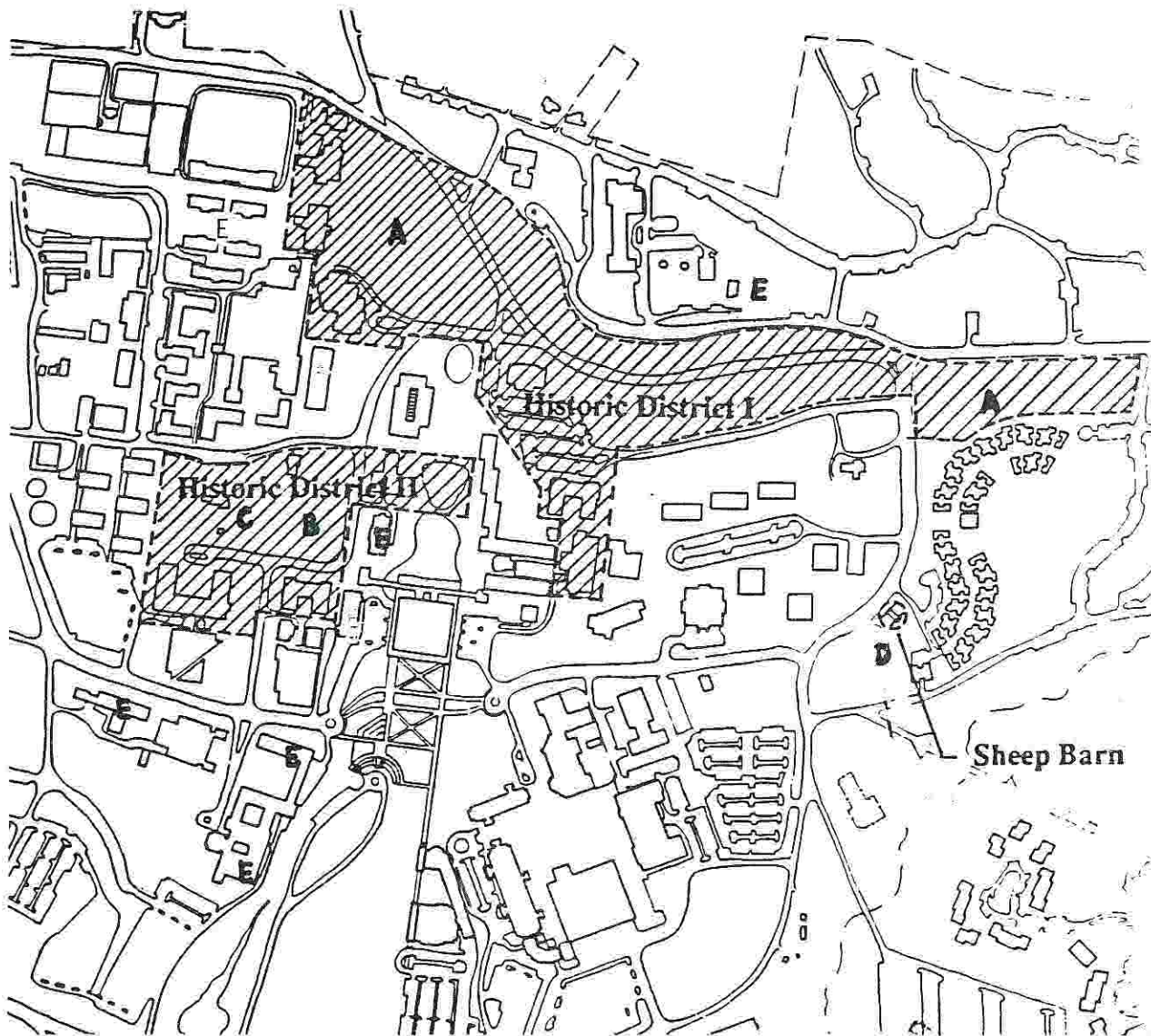


Figure 1: Historic Resources of the Clemson Campus

- A. Area Included in National Register Historic District I**
- B. Area Included in National Register Historic District 2**
- C. National Historic Landmark**
- D. Individually Listed on National Register**
- E. Significant Structures not listed on National Register**

Note: Hanover House, listed on the National Register, is located in the South Carolina Botanical Garden, as are the Ransom Hunt Cabin and outbuildings, which have been nominated to the Register. Hopewell is located about two miles south of the campus on Lake Hartwell and is listed on the National Register as part of the Pendleton Historic District.

CHRONOLOGY OF CAMPUS RESOURCES

1716***	Hanover House	St. Julien-Ravenel House, Relocated: 1941, 1994
1785****	Hopewell	Andrew Pickens Residence
1803c.**	Fort Hill	John C. Calhoun, Thomas G. Clemson Residence
1825	Ransom Hunt Cabin	Relocated: 1955, Botanical Garden
1890/1900*	Hardin Hall	Fire: 1946, roof removed
1890-92, 94*	Tillman Hall	Bruce & Morgan, Arch'ts, Atlanta. Fire: 1894. Renovated, 1978.
1890's	Bowman Field	
1894	Kinard Annex	Residence
1894*	Trustee House	Hardin Residence
1898*	Godfrey Hall	D. A. Tompkins, Arch't. Renovated: 1965, 1987.
1904-05*	Sikes Hall	Fire, 1924: renovated as library by R. E. Lee
<1910	Barns @ Simpson Experiment Center	
1915***	Sheep Barn	
1915-16*	YMCA / Holtzendorff Hall	R. E. Lee, Arch't. Renovated, 1957
1920's*	W. W. Long House	Sears House
1920's	Moorman House	
1927*	Riggs Hall	R. E. Lee, Architect
1930-32	Fike Field House	R. E. Lee, Arch't. Renovated and Expanded.
1935-36	Barracks (Fraternities)	R. E. Lee, Arch't. with J. E. Sirrime
1935	Dairy Barn	
1937*	Long Hall	R. E. Lee, Architect
1937-39*	Sirrime Hall	R. E. Lee, Arch't with J. E. Sirrime. Renovated: 1980
1938*	Post Office (Mell Hall)	WPA Arch't. To Clemson, 1973
1939/1966*	Thomas G. Clemson Statue	A. Wolfe Davidson, sculptor
1940*	Ampitheater	Leon LeGrand, Architect
1956-58	Lee Hall, Lowry Hall	Harlan McClure, Lockwood Green, Architects
No Date*	President's Park	
No Date	Pioneer Farm Cabin & Storehouse	

* Listed on National Register in Clemson Historic Districts I & II

** National Historic Landmark

*** Individually Listed on National Register

**** Listed on National Register as part of Pendleton Historic District

The Era of John C. Calhoun and the Pendleton District (1716-1889)

Fort Hill with its outbuildings and grounds, Hanover House, Hopewell, and the Ransom Hunt Cabin predate Clemson College. They are significant for their association with the early settlement of the region, the lives of John C. Calhoun and General Andrew Pickens, and for their tie to the early growth of Pendleton and the Pendleton District.

The Early Years of Clemson College (1890-1910)

Tillman Hall, Hardin Hall, Godfrey Hall, Sikes Hall, and Bowman Field are associated with the founding and early years of the University. They have been significantly modified over the years, and all are actively used. The Trustee House (Hardin Residence), and Kinard Annex represent a tie to a time when all faculty lived on College property. All structures are vital to maintaining a tie to the past.

The Rudolph E. Lee Era (1911-1940)

Rudolph E. Lee designed almost all campus buildings built between 1915 and 1940. His buildings represent a significant part of the fabric of the historic Clemson campus, and possess distinctive and powerful common features which help to define the character of Clemson as a whole. Lee structures adjacent to the campus, including the Sloan Store and Holy Trinity Episcopal Church, help to reinforce the overall importance of Lee to the Clemson community as well as to the university.

The W. W. Long Residence (Sears House) and Mell Hall (Post Office), were built during the Lee era, but were not designed by Lee. They are significant for reasons that have little to do with Clemson University. The Long residence is a model Sears House, pre-fabricated structures of significant interest nationwide. Mell Hall is a typical depression era post office. The Moorman House is one of

the few remaining structures in the Hotel Hill area above SC 93, which was long a principal residential location for Clemson professors.

The Late Historical Era (After 1940)

The outdoor theater is one of the few resources remaining from the 1940's; it is also significant as an example of the work of the regionally important architect Leon LeGrand. The Thomas Green Clemson Statue is important as a reminder of T. G. Clemson and is also significant for its design by noted sculptor A. Wolfe Davidson, a Russian emigre who traded his statue design for tuition at Clemson.

Olin Hall and Earle Hall were among the first buildings built after World War II, and they preserved many characteristics of earlier buildings including low-pitched hip roofs. While not yet eligible for listing on the National Register, they may be considered as historic resources by the university itself. Remaining prefab housing units should be documented and monitored due to their importance to the postwar era. Most were sold and relocated to sites off-campus.

Lee Hall and Lowry Hall should be considered a local historical resource, and should be considered for nomination to the National Register in the future based on their age and significance to modern architecture.

Clemson's Agricultural Heritage

Clemson College began as an agricultural and mechanical institution in the land-grant tradition. Agricultural buildings, such as the Sheep Barn, dairy barn and cattle barn provide a physical reminder of a time when agricultural buildings were a major feature of the campus.

Landmarks

A survey of the visual character of Clemson Historic Resources indicated that the following structures are consistently identified as campus landmarks. They are not necessarily consistent with the overall character of the campus, but deserve special attention because of their unique individual significance.

- 1. Fort Hill residence and outbuildings**
- 2. Tillman Hall and Tower**
- 3. Hanover House**
- 4. Bowman Field**
- 5. Thomas G. Clemson Statue**

Character Defining Structures

The following structures help define the fundamental character of the historic Clemson campus. They are predominantly substantial, two-to-three story brick buildings of traditional design including classical, Romanesque or Italianate revival styles. They are generally symmetrical and formal, with hip roofs and careful stone and wood detailing.

- 1. Hardin Hall & Residence (Trustee House)**
- 2. Sikes Hall**
- 3. Godfrey Hall**
- 4. All Rudolph E. Lee Buildings**

Landscape Features

The character of the campus is defined by landscaped areas and open space as well as by buildings. Bowman field is particularly important as it provides an open view corridor which allows visitors to see the relationship between the key landmarks and character-defining buildings such as Tillman Hall, Sikes Hall, Godfrey Hall, the YMCA and Mell Hall. The Tillman / Riggs / Hardin /Fort Hill quadrangle is almost equally important, with informal open fields and a major allee of trees between Tillman Hall and Riggs Hall. Presidents' Park helps define the entry to the campus, while Riggs field and the practice field in front of Fike

Field House help maintain views into the campus from SC 93. The Carillon Garden / Cooper Library shaft of space is also significant, as it follows a former creek and is a central organizing element of the Master Plan. Fernow Street is an important entry to the historic district from the south.

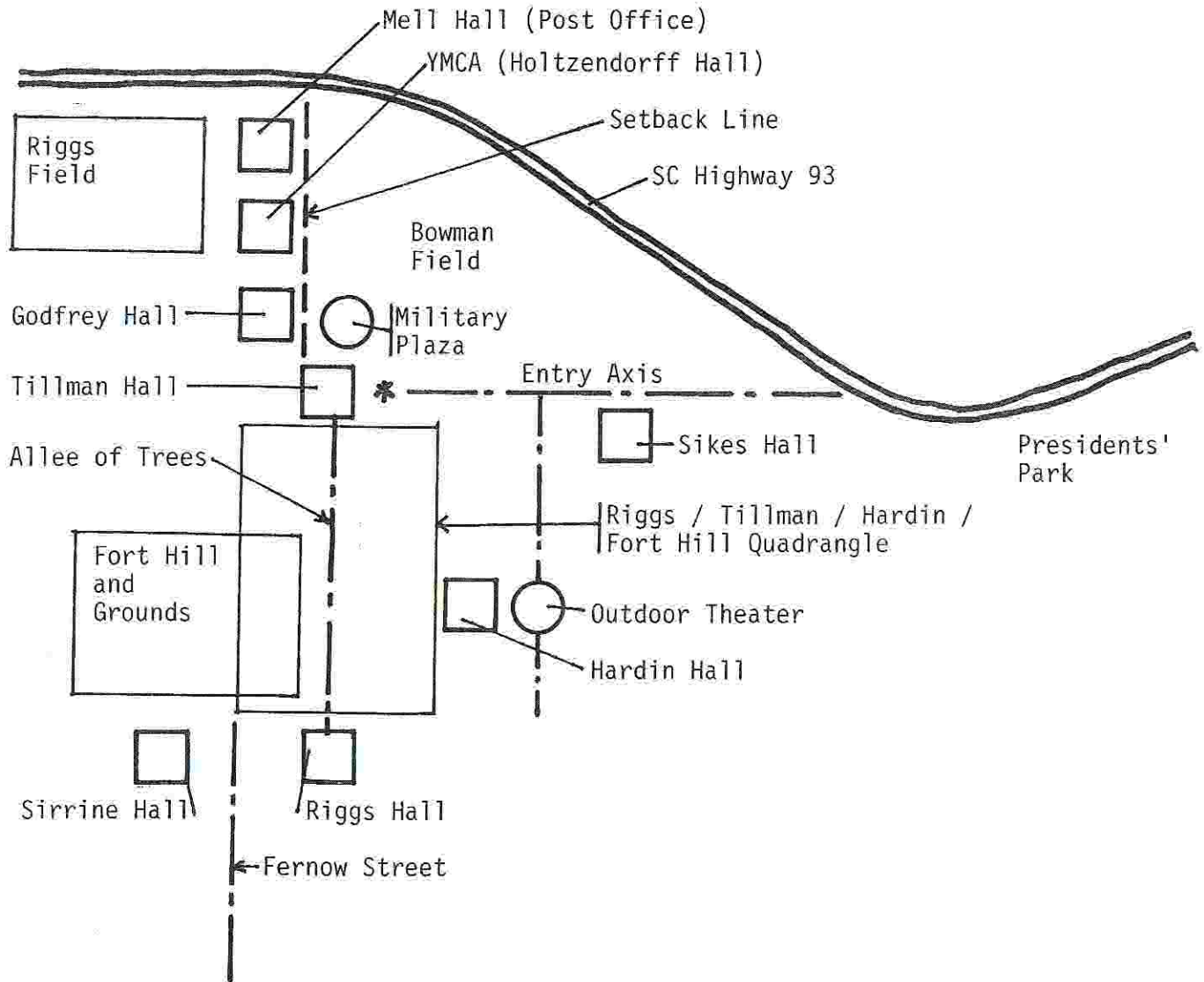


Figure 2: Diagram of Historic Landscape Features

GUIDING PRINCIPLES

The process of guiding preservation and rehabilitation of historic properties often involves a long list of discrete and detailed recommendations. Rigid guidelines run the risk of missing important problems that have not yet occurred or have been noticed, of being so strict as to require extraordinary expense where no real purpose is served, or of not having the ultimate positive effect anticipated.

For Clemson, the following set of Guiding Principles sets the stage for all rehabilitation, restoration and maintenance efforts in a way that responds to both the constant need for change and the desire to preserve and reinforce the historic character of the campus. Detailed examples are provided later in this report as illustrations of how to interpret the Guiding Principles.

1: APPROPRIATENESS:

Conservation, restoration, rehabilitation, maintenance and interpretation of historic structures should respect the time period and significance of each structure or group of structures.

Resource categories are listed below.

The Era of John C. Calhoun and the Pendleton District. (1716-1889)

The Early Years of Clemson College. (1890-1910)

The Rudolph E. Lee Era. (1911-1940)

Rudolph E. Lee Buildings

Other Lee Era Buildings

The Late Historical Era: (After 1940)

Clemson's Agricultural Heritage

2: ADDITIONS AND ALTERATIONS:

Most campus buildings are an active and evolving part of the living campus, and design guidelines should encourage adaptation and change while preserving character-defining features.

2A. Buildings should be CONTINUOUSLY PRESERVED AND MAINTAINED to present a positive appearance to alumni, visitors, students and the general public and to protect the enduring value of the structures.

2B: ADDITIONS to historic structures should be avoided if possible. If required, they should be designed to be as unobtrusive as possible, should not overwhelm the original structure, and should be compatible in design and detailing to the original structure.

2C. When CHANGES IN USE are needed, programming should emphasize uses which require the least drastic changes to the buildings.

2D. All historic structures should provide maximum **SAFETY AND ACCESSIBILITY** to the handicapped while maintaining the symmetry, detailing and visibility of important building facades.

2E. All historic structures should promote **FUNCTIONAL UTILITY AND CONVENIENCE**, energy efficiency, and comfort to the greatest extent possible without compromising the integrity of their historic character.

2F. Except for Fort Hill, its outbuildings, and Hanover House, only EXTERIOR FACADES should be covered by guidelines, unless interior changes are visible on the exterior of the building.

3: LANDSCAPING AND OPEN SPACE:

The relationships between the buildings and the landscaped open spaces between them help define the character of the campus and must be preserved, maintained, used and developed carefully.

3A: NEW STRUCTURES should not be placed in the Historic District in such a way as to compromise views of any significant facades of historic structures.

3B: While STREETS, WALKS, AND PLAZAS can contribute to the functional utility of the campus, they should emphasize an open, informal landscape appropriate to the era of the surrounding buildings.

3C: FUNCTIONAL SITE ELEMENTS such as parking lots, trash receptacles, dumpsters, traffic lights, traffic signs, air-conditioning units, bus shelters, and utility lines should be minimized in the historic district. Where they must be used, they should be carefully placed and screened to be as inconspicuous as possible.

3D: While TREES AND LANDSCAPING can add to the character and beauty of the campus, landscape features should not obscure historic relationships between buildings.

3E: Landscape resources have historic merit in their own right, and should be maintained to respect the **HISTORIC LANDSCAPE CHARACTER**.

4: MAINTENANCE:

The cumulative effects of routine maintenance and minor alterations should be considered as seriously as major rehabilitation and new construction.

5: ARTWORKS AND DECORATION:

Historic artworks, sculpture, mosaics, and decoration are essential to the understanding of the properties; their relationship with their original context should be maintained.

OUTLINE HISTORIC PRESERVATION PLAN

Organizational and Procedural Recommendations

1. The Facilities Planning Committee should formally adopt the **Guiding Principles and Guidelines for Resoration, Rehabilitation and Maintenance of Clemson Historic Resources** included in this report.

2. The Historic Preservation Plan projects should be studied in further detail. Upon review and approval of the Historic Preservation plan, the document can be appended to the Campus Master Plan in the same way as the Master Plan Design Guidelines.

3. A multidisciplinary campus platform for collaboration on Historic Preservation should be formed. It may advise and comment on campus projects, provide and coordinate classroom instruction in preservation, and conduct continuing research on campus historic resources. The group should include faculty, staff, student, alumni and public representation and should serve as an advocate for preservation activities on campus.

4. The following buildings should be nominated to the National Register for Historic Places or should be defined as local historic resources.

- * Fike Recreation Center
- * The Barracks (Fraternities)
- * The Moorman House
- * Entry gates
- * Ransom Hunt Cabin and outbuildings (in progress)
- * Cemetery Hill
- * Riggs Field

5. The following properties should be treated as local historic resources:

- * The Cattle Barn and Dairy Barn

6. The following buildings should be considered significant to the campus and a reviewed by the SHPO should be requested to determine their eligibility for nomination to the National Register of Historic Places. They should be nominated to the Register if and when they are eligible.

- * Olin Hall and Earle Hall
- * Lee and Lowry Halls

7. Agricultural buildings on campus, at agricultural experiment stations, and on other University-owned properties should be inventoried and surveyed. Appropriate buildings should be nominated to the National Register.

8. Historical landscape materials should be researched and documented, especially in the Tillman / Riggs / Hardin / Fort Hill quadrangle.

9. A person knowledgeable about historic buildings should be named as a resource to the Facilities Planning Committee and Facilities Planning Steering Committee. As issues arise that affect historic properties, the resource person would be called in to participate in discussions and assist in tasks related to proposed actions.

10. Architecture, Engineering, and Landscape Architecture selection committees, submittal requirements, and presentation formats for historic properties should include and weight heavily prior experience and expertise in research, design, and engineering of historic properties. The coordinator or chair of the selection committees, currently the Campus Master Planner, should ensure that selection processes receive the attention they need from properly qualified individuals.

11. Because the procurement code of South Carolina precludes consideration of almost any factors other than price in construction bids, project design, detailing and specifications should be written tightly for historic properties to insure that appropriate methods and techniques are followed. If possible, a list of experienced rehabilitation and restoration contractors should be prepared, and these contractors should invited to bid on all historic projects on campus.

12. For buildings on the National Register covered by the State-Owned Properties Act, the State Historic Preservation Office should continue to be involved in consultation and review of all significant restoration, rehabilitation and maintenance actions on an as-needed basis through the Designated Preservation Professional.

Major Projects

1. **Hardin Hall** should be fully rehabilitated due to termite damage, lack of handicapped access, poor mechanical systems and an inefficient layout. If possible, the late one-story addition in the rear should be removed and hip roofs restored to the structure. Fire escapes should be removed and replaced with new internal vertical circulation elements. All exterior facades should be protected and preserved, though some windows and doors may need to be thermally upgraded. Significant interior features should be retained if possible.

2. **Fort Hill** should be totally restored based on the recommendations of Phillips & Opperman, P. A. and William Seale and on-going research and documentation efforts. While funding should primarily come from private sources, the University should provide some matching funds based on Fort Hill's value in promoting the university and recruiting faculty and students, and the provisions of Thomas Clemson's will.

3. A new use should be found for the **Sheep Barn** which will be compatible with the existing structure. Past efforts and proposals have included the agricultural products sales center and a community theater. The temporary east campus store should be removed upon completion of the east campus student center.

4. The Hardin House (**Trustee House**) should be thoroughly rehabilitated, and possibly converted for use as an orientation center for Fort Hill. The rear addition and parking lot should be removed in the process.

5. A new use should be found for **Hopewell** and the building should be fully rehabilitated. Twentieth century additions should be removed.

6. A major effort should be undertaken to remove or reconstruct inappropriate stair and elevator towers at Rudolph E. Lee buildings including the Textile Building (**Sirrine Hall**), The Barracks (**Fraternities**), and the Engineering and Architecture Building (**Riggs Hall**).

7. The **outdoor theater** should be rehabilitated, possibly at the same time that Hardin Hall is rehabilitated. Improvements should include careful screening of service areas and plantings to decrease the impact of Martin Hall on the theater area.

Other Projects

1. **Stoplights** suspended from overhead wires near Bowman Field should be removed and replaced with bronze-finish pole-arm fixtures. ISTEA funding could be sought for the project.

2. **Historic Markers** should be installed to identify key historic resources. Historic markers help employees, students and visitors understand the historic significance of campus resources, and help build respect for the resources. The University should begin a regular program of installing historic markers at historic sites.

Historic markers are currently located at the following locations.

1. **Fort Hill**
2. **Hopewell / Hopewell Indian Treaties** (2 - sided sign)
3. **Cemetery Hill: Asbury F. Lever**
4. **Simpson Graveyard**
5. **Thomas G. Clemson burial site**
6. **Clemson Forest: Keowee Heights, John Ewing Calhoun**

Locations that should be considered for future installation include:

- * **Tillman Hall / Benjamin Tillman** (2 sided sign)
- * **Sikes Hall**
- * **Hardin Hall**
- * **Hardin Residence (Trustee House)**
- * **YMCA / Rudolph E. Lee** (2 sided sign)
- * **Hanover House**
- * **Mell Hall / John Carrol** (2 sided sign)
- * **Ransom Hunt Cabin**
- * **Godfrey Hall**
- * **Sirriner Hall / J. E. Sirrine** (2 sided sign)
- * **Riggs Hall / Rudolph E. Lee** (2 sided sign)

3. The closed up windows of **Fike Recreation Center** should have window treatments installed, including new non-working mullions. Glass windows should be simulated by non-reflective spandrel glass. Closed up windows in the west wall of **Riggs Hall** should be restored as windows with matching units or be simulated as discussed above.

4. A **tour guide / brochure** should be published describing Historic Resources on the Clemson Campus. The brochure should be available at the Visitors Center, Admissions office and S.C. Botanical Garden and should be distributed with admissions packages and through local tourism and preservation organizations. Examples include the Old Main brochure of Northern Arizona University and Thomas Jefferson's Academical Village, University of Virginia.

Long Range Projects

1. The Master Plan should include a 10 to 50 year plan for landscape restoration based on research outlined above.
2. Agricultural buildings should be rehabilitated as appropriate.
3. University Guide Association docents should be trained to give guided tours of the campus including interpretation of historic resources.

GUIDELINES FOR RESTORATION, REHABILITATION AND MAINTENANCE OF CLEMSON HISTORIC RESOURCES

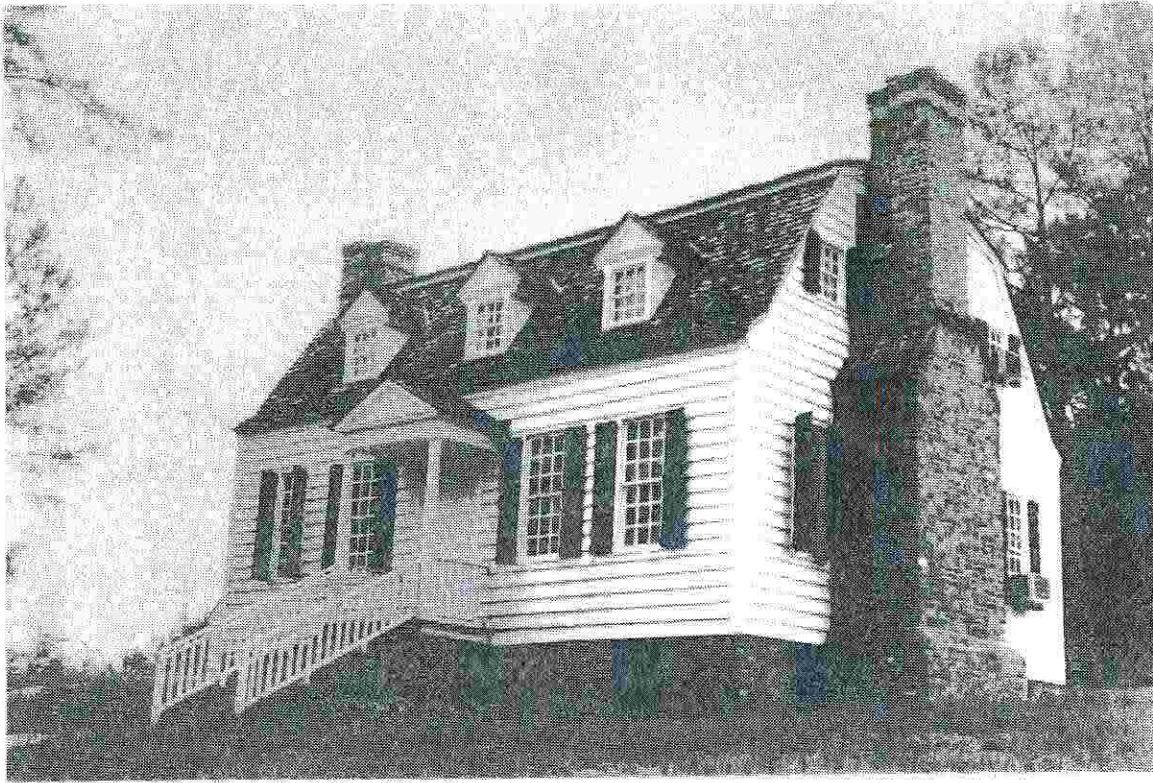
The following pages apply the guiding principles outlined earlier to specific buildings and landscape elements of the Clemson Campus in order to clarify the intent and application of the guiding principles. The examples selected are not an exhaustive listing of possible changes, but are included to explore a variety of contexts for application of the principles, and to illustrate the process for applying the principles to future issues as they arise.

1. APPROPRIATENESS:

Conservation, restoration, rehabilitation, maintenance and interpretation of historic structures should respect the time period and significance of each structure or group of structures.

The Era of John C. Calhoun and the Pendleton District (1716-1889)

Fort Hill, its outbuildings and grounds, Hanover House, Hopewell, and the Ransom Hunt Cabin predate Clemson College. They should be restored, protected and interpreted as individually significant structures. They should not be changed or modified to "fit" better with campus structures. Only the Fort Hill house, outbuildings and grounds are located on the Clemson Campus itself, and are the only resources from this period affected by overall design guidelines for the campus. The other buildings should be treated as any other significant structures from the period. Fort Hill and Hanover House deserve continuing efforts to restore the properties as accurately as possible. Fort Hill restoration, in particular, should be based on recommendations of restoration consultants of the highest qualifications, and should involve significant archaeological work to document the property as it was in the period of John C. Calhoun while acknowledging the period of Thomas Green Clemson.



Existing wood shakes are thicker and wider than appropriate for the colonial period. They should be replaced with thin narrow wood shingles when the roof next needs major repairs.

A more formal axial entry with steps should be built to supplement the current curving sidewalk.

Figure 3: Hanover House is the oldest structure owned by Clemson University. It is a fine example of early wood plantation houses. It was built by Paul de St. Julien in upper Berkeley county in 1716 and relocated to the Clemson Campus in 1944. It was moved to the SC Botanical Garden in 1994.

The Early Years of Clemson College (1890-1910)

Tillman Hall, Hardin Hall, Godfrey Hall, Sikes Hall, the Trustee House and Kinard Annex are uniquely associated with the founding and early years of the University. Most are grouped around Bowman Field. They have been significantly modified over the years. Key exterior facades should be maintained and rehabilitated carefully. Where possible, inappropriate past changes should be corrected. No new intrusions in the area should be permitted.

The Trustee House (Hardin Residence), and Kinard Annex represent a tie to a time when all faculty lived on College property. Because they are so few, their residential character needs to be preserved wherever possible. New uses should be found which do not require major additions or alterations. Steps should be taken to remove additions and alterations to the structures to recover their historic residential character.

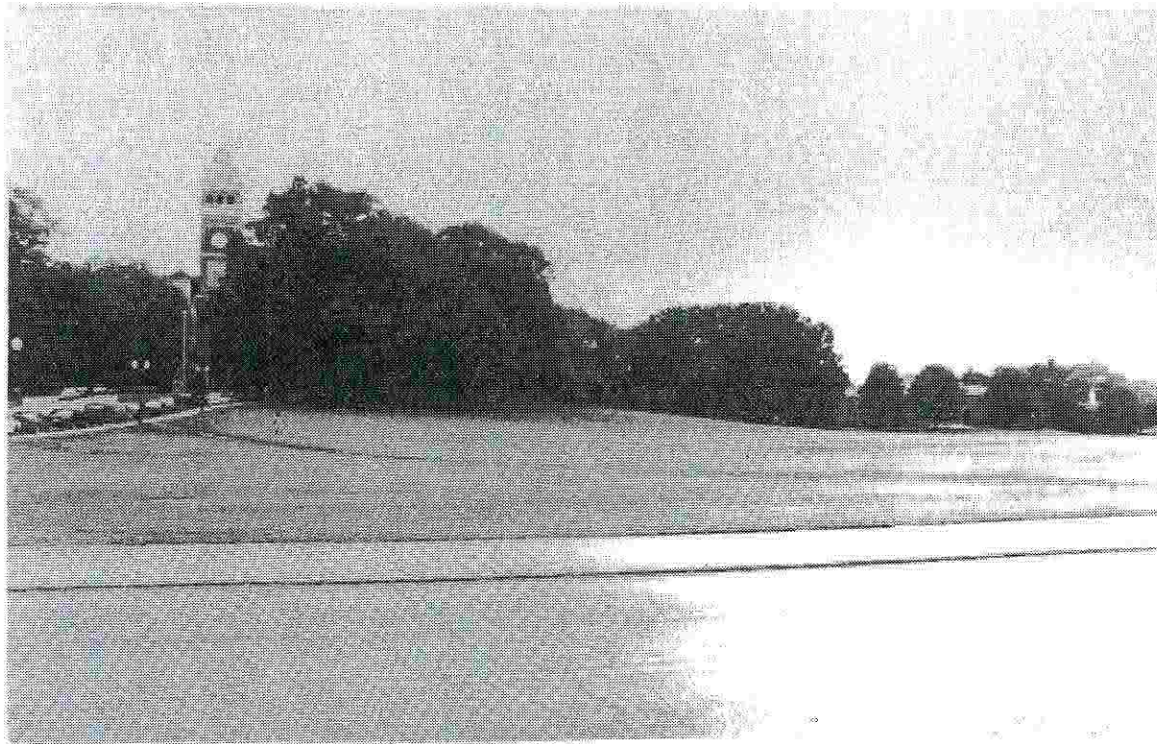


Figure 4: *Bowman Field serves to organize and relate the buildings of the early campus, including Tillman Hall, Sikes and Godfrey. It should be maintained as an open grassed field with no paved walkways or plazas other than the Mell Hall Plaza and the proposed military plaza.*

The Rudolph E. Lee Era (1911-1940)

Rudolph E. Lee designed almost all campus buildings built between 1915 and 1940. His buildings represent a large part of the fabric of the historic Clemson campus, and possess distinctive and powerful common features which help to define the character of Clemson as a whole. Capital improvements, additions and maintenance of the buildings should carefully retain existing common features and seek, where possible, to restore features that have been obscured or damaged in the past. Lee's architecture may serve as a model for new campus buildings in historic areas without being directly copied, as exemplified by Holmes and McCabe Halls.

Lee structures including the fraternity houses and field house should be restored and added to the district. Lee buildings adjacent to the campus, including the Sloan Store and Holy Trinity Episcopal Church, help reinforce the context of Lee's campus buildings. Their preservation by private owners should be encouraged.

The Sears House and Mell Hall were built during the Lee era, but they were not designed by Lee and are significant for reasons that have little to do with Clemson University. The Sears House should be restored and maintained to preserve all markings on parts and to exemplify a model Sears House. Mell Hall should be maintained and interpreted as a typical depression era post office. The Moorman House should be maintained as a 1920's era residence, reflecting a time when Hotel Hill was a primary location for professors' homes.

The Rudolph E. Lee Buildings

- * The YMCA (Holtzendorf Hall)
- * The Engineering and Architecture Building (Riggs Hall)
- * Long Hall
- * Serrine Hall
- * The Barracks (Fraternities)
- * Field House (Fike Recreation Center)

Lee's descriptions of his own buildings help us understand the key characteristics of his buildings. About the Architecture and Engineering Building (Riggs Hall), Lee says:

The design of the building is of an Italian feeling, the inspiration for it was obtained from the Villas of Rome and Florence, of sunny Italy. The exterior is to be faced with a rough texture brick of varying range of colors with limestone trim, the roof of mission tile in pastel shades, with wide overhanging eaves and bracketed cornice. The central motif is of limestone extending through two stories with a stone balustrade at the second floor level, the end bays of the front facade contain large stone-trimmed windows extending thru two stories with wrought iron balustrades. In the circular heads of these windows are colored terra cotta inserts depicting the activities of the building and limestone grotesques project from the walls above. An effort is made in the use of the rough brick and other materials to get soft pleasing color effects in the scintillating sunlight with a play of shadows together with rugged strength in the stone features....

The building is a southern product, largely of our own State materials. The face brick are the Airedale brick from Sumter, the granite steps are from Winsboro (sic), crushed granite from Beverly, sand from our own College property; the lumber that was needed in the construction came from the mountains above us; roofing tile and hollow tile from Georgia, gypsum blocks and plaster from Virginia, steel from Birmingham, cement from Tennessee and limestone from Indiana.

Lee's description not only defines the building's features, but also gives sources for many of its materials. Key guidelines for Lee buildings should include:

1. **Roof lines** should not be altered. Hip roofs are a key defining characteristic of Lee buildings.
2. **Tile roofs** should be repaired with matching materials.
3. **Dormers** should be preserved, though variations may be allowed in louvered screens or windows in the ends of the dormers.

4. **Eaves and brackets** should be painted regularly to avoid deterioration that could lead to the need for replacement.

5. **Distinctive downspouts** are carefully placed as part of the facade. They should not be removed or replaced with inappropriate materials or designs.

6. **Brickwork** is of mixed colors ranging from orange to almost purple. The bricks are mixed as they are laid to create a random effect. They should not be replaced by bricks that are uniform in color or that are of colors that do not match.



Figure 5: Non-matching brickwork at the YMCA detracts from the appearance of the south facade of the building.

7. **Limestone trim elements**, such as headers, sills, water table, decorative trim and carvings should be cleaned periodically by the gentlest possible means, such as the water soak method. They should not be painted or altered.

8. **Granite steps** require little maintenance. Non-skid treads and other alterations should be avoided if possible.

9. **Mosaic detail work** should also be regularly cleaned. Any damaged or missing tiles should be replaced with matching materials and matching grout.

The key elements of Lee's buildings are illustrated below.



Hip Roof

Decorative Eaves & Brackets

Interior Gutters & Downspouts

Mosaics

Grotesques

Terra-cotta Inserts

Limestone Banding & Detail Elements

Multi-color Brick

Granite Steps

Figure 6: Design Elements of Rudolph E. Lee Buildings

Actions Needed for Rudolph E. Lee Buildings

1. The white concrete stair towers at the Barracks (Fraternities) differ in material, design and size from the historic brick entry stairs. The towers should be replaced with brick stair towers that meet contemporary codes but are complementary with the original Lee designs.

2. Stair and elevator towers at Sirrine Hall and Riggs Hall block the view of key facades and are incompatible with the symmetry, materials and details of the historic structures. The tower at Sirrine Hall is of monochrome brick, and does not respect the banding of the original structure. The roof is of non-matching materials. The tower should be relocated to the rear of the building adjacent to the Chemistry building, which already blocks the south facade of Sirrine Hall. Even on the rear, however, the new tower should reflect the banding and materials of the original building.

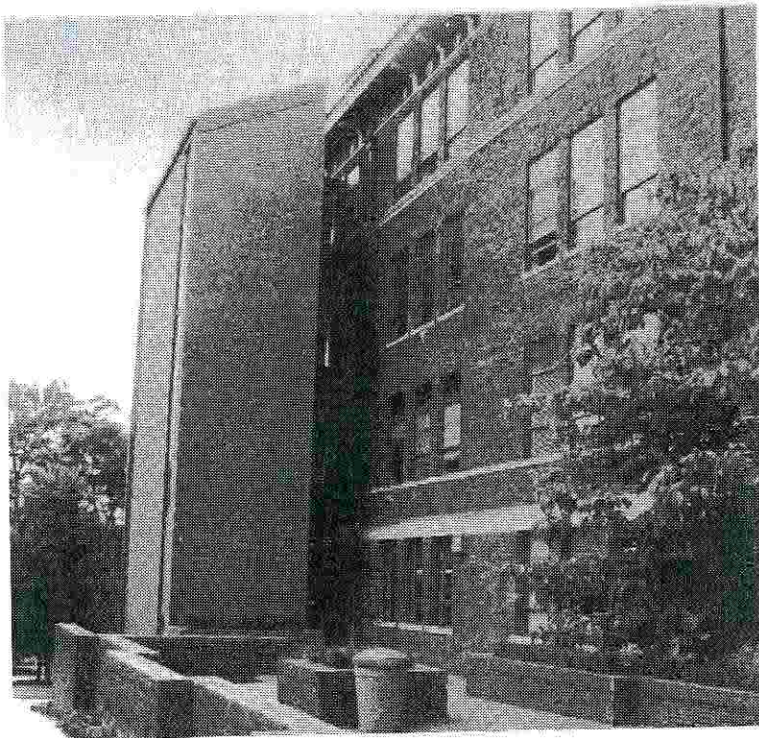


Figure 7: The Stair Tower at Sirrine Hall should be removed and replaced with a new stair tower located on the rear of the building adjacent to the chemistry building.

The elevator tower at Riggs is better because it is located on the side adjacent to the Rhodes Engineering Research Building. It is still, however, visible from the Tillman / Riggs quadrangle and should be relocated or redesigned if possible.

3. Window treatments at Fike Recreation Center use simple white panels to fill in former windows in the gym. Opening the windows again is impractical for functional purposes, but the appearance could be significantly improved by installing non-reflective spandrel glass panels to simulate glass separated by narrow fixed mullions based on the historic window design.

4. Blocked up windows in the upper right corner of the west facade of Riggs Hall should be restored with matching window units or treated like the windows at Fike.

Other Lee Era Buildings

The Sears House should be managed and maintained to preserve all markings on parts and to exemplify a model Sears House. While vinyl siding has been added, it should be removed when it deteriorates, or is in danger of causing the deterioration of the original siding. Interior alterations should be avoided because they could result in the loss or damage to original Sears parts.

Mell Hall should be restored, maintained and interpreted as a typical post office of the depression era. If reasonable in the future, the John Carrol mural should be restored to its original location.

The Moorman House, one of the few remaining structures on Hotel Hill Road, should be treated as a local historic resource, and considered for nomination to the National Register in the future. It should be maintained to preserve its single-family residential character.



Figure 8: The Moorman House is one of the few remaining houses on Hotel Hill Road, long a major residential location for Clemson faculty. It should be maintained as a typical residential structure of the 1920's.

The Late Historical Era: (After 1940)

The outdoor theater is one of the few resources remaining from the 1940's. It should be screened from more modern additions, and its connection with Sikes and Hardin should be enhanced. Because the facility is deteriorating rapidly, it should be fully restored within five years based on a detailed restoration plan prepared by qualified consultants.

The Thomas Green Clemson Statue should be interpreted to reinforce connections with the sculptor's other works on campus.

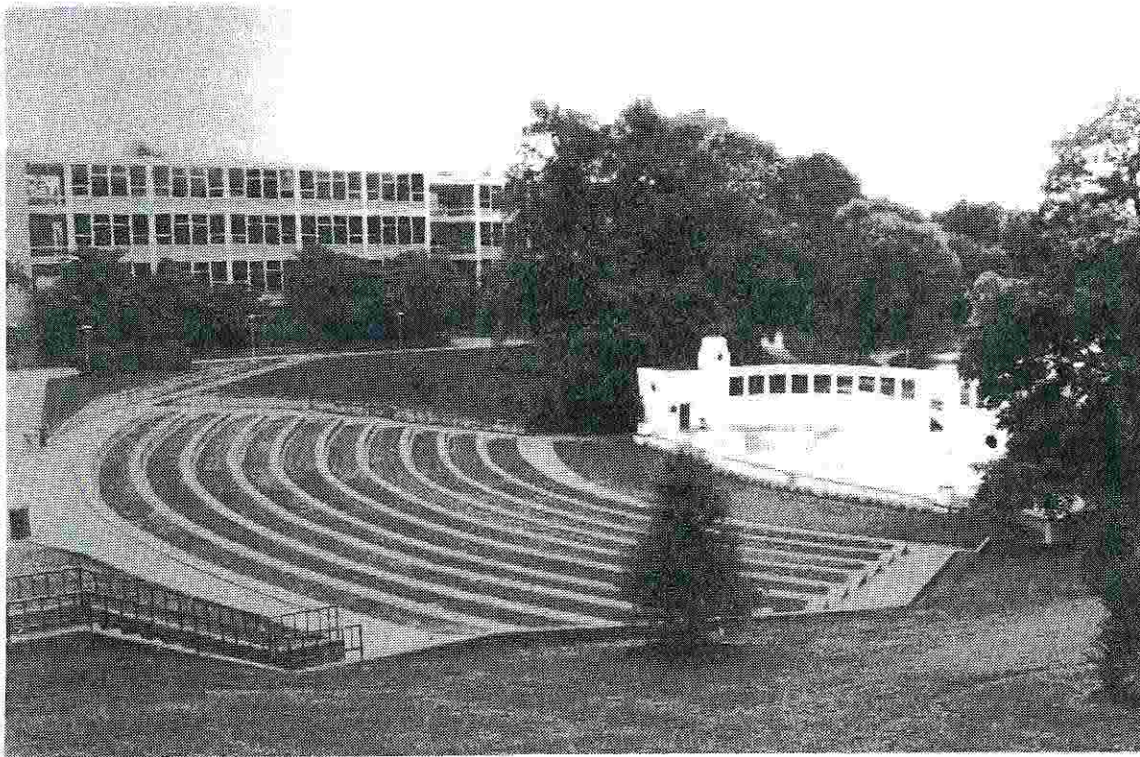


Figure 9: The Outdoor Theater, designed by Leon LeGrand, should be fully restored, and additional landscaping should be installed to screen off Martin Hall.

Olin Hall and Earle Hall are among the first buildings erected after World War II. They are formal two to three story buildings that have hip roof lines consistent with character defining campus buildings, though they are modern rather than traditional in detailing. They will not be eligible for the

National Register until they are fifty years old, but should be reviewed for eligibility for nomination at that time. Until nomination, the exterior facades should be preserved and protected as local resources that support the overall character of the campus.

Lee Hall and **Lowry Hall** should be considered a local historical resource, and should be considered for nomination to the National Register in the future based on their age and significance to the modern era. The formal modernism of the original wing of Lee Hall is a particularly good example of late modern architecture. It does not have handicapped access to the upper floor. A needed elevator should be installed with great care to avoid irreversible damage to a distinctive structure.

Remaining **prefab housing units** that exist should be documented and monitored due to their importance to the postwar era.

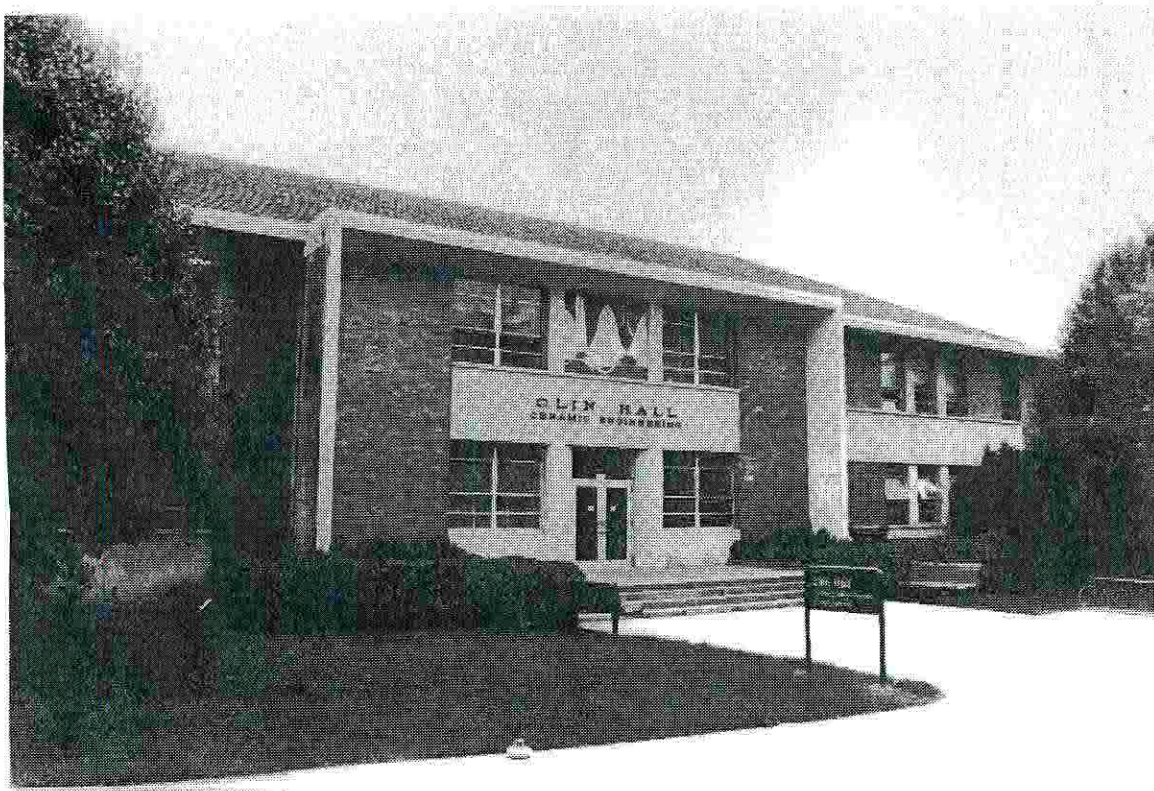


Figure 10: Olin Hall was built just after World War II and shares many design features of earlier campus buildings. Olin and Earle Halls should be reviewed for eligibility for nomination to the National Register.

Clemson's Agricultural Heritage

Agricultural buildings, such as **the Sheep Barn**, represent Clemson's agricultural heritage. Agricultural buildings on campus, and at research stations and other University-owned properties, should be surveyed and protected as appropriate. Interpretation could be connected with older structures such as Fort Hill, Hanover House, Hopewell and the Ransom Hunt Cabin to describe the evolution of agricultural practices over time.

Most agricultural structures are rough buildings, and are not suited to classroom, office or housing needs. Current use of the Dairy Barn and Cattle Barn for golf course maintenance and construction equipment is compatible with the design of the structures and may provide a model for treatment of other facilities.

Some landscape features such as the Bottoms (corn fields) and terracing at the S.C. Botanical Garden may also warrant investigation and preservation.

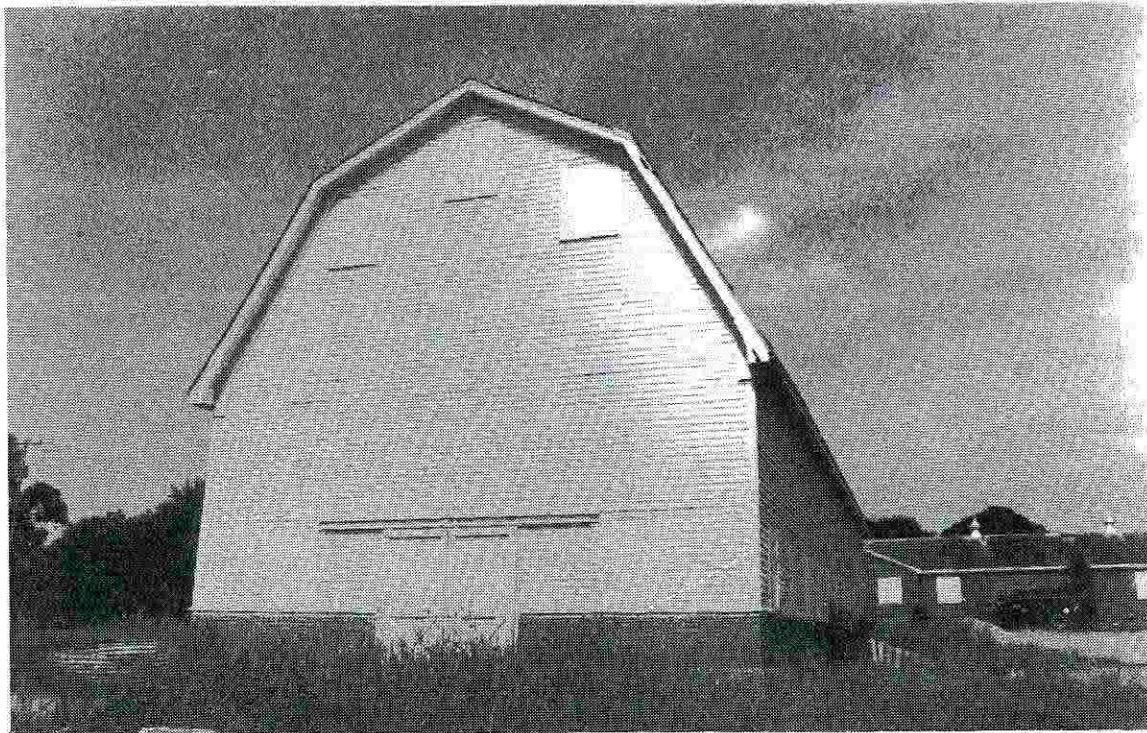


Figure 11: The Cattle Barn and the Dairy Barn are being used for construction activities and golf course maintenance, uses which are compatible with the design of the structures.

2: ADDITIONS AND ALTERATIONS:

Most campus buildings are an active and evolving part of the living campus, and design guidelines should encourage adaptation and change while preserving character-defining features.

The process of change is as much a part of the buildings as the original design: many modifications are historic in their own right. The need for constant change requires consideration of the following guidelines.

2A. Buildings should be continuously preserved and maintained to present a positive appearance to alumni, visitors, students and the general public, and to protect the enduring value of the structures.

Clemson has a strong and consistent maintenance program, with many skilled craftsmen on the staff. Only Hardin Hall and Hopewell House have serious maintenance problems at present, and both need to be scheduled for major rehabilitation. Cuts in state funding, however, could threaten the ability to maintain buildings adequately, and ultimately cause deterioration of the structures. Maintenance funds should be defended assiduously to maintain the value of the buildings as well as to present a positive appearance to all constituencies.

2B: Additions to historic structures should be avoided if possible. If required, they should be designed to be as compatible as possible, should not overwhelm the original structure, and should be compatible in design and detailing to the original structure.

Kinard Annex, a nineteenth century residential structure, is overwhelmed by the massive scale of Kinard Hall. The modern addition to the Field House (Fike Recreation Center) is located to the rear of the original, and is clearly separated by use of different materials and design. Design compatibility could have been improved by using similar materials, by maintaining key roof lines, and by using similar detail elements.

2C. When changes are needed, programming should emphasize uses which require the least drastic changes to the buildings.

When Sikes Hall was renovated to become the administration building, significant internal spaces created by Rudolph E. Lee in the 1920's were filled in or completely modified. Changes to Tillman Hall obscured ceiling vaults that are shown in historic photographs. The installation of alumni relations and other offices in the Hardin Residence (Trustee House) required an addition and a parking lot immediately adjacent to Fort Hill.

Specific guidelines include the following:

1. New uses should not require closing up existing windows or doors or the installation of new windows or doors in what were previously solid walls.
2. New uses should not require any new parking lots within historic open spaces.
3. New uses should not require extensive structural modifications or changes in major facades or roof lines.

2D. All historic structures should provide maximum safety and accessibility to the handicapped while maintaining the symmetry, detailing and visibility of important building facades.

New stairway and elevator towers added to the fraternities, Serrine Hall, Riggs Hall and Long Hall changed the original symmetry of the buildings and were not compatible in materials, banding or details. Long Hall is probably the least affected, because the additions were made to the rear, the least important facade of most Lee buildings. The stair tower at Serrine is poorly placed and designed as discussed on page 26.

Handicapped ramps may also detract from the integrity of the facades of historic buildings, as at the west side of Riggs Hall. Such ramps should be placed where they can be the shortest and least visible, and should be designed to respect the symmetry, detailing and materials of the original building.

Fire escapes at Hardin Hall are highly visible. They should be replaced with new internal stair towers if possible, or by sensitively designed external stair towers.

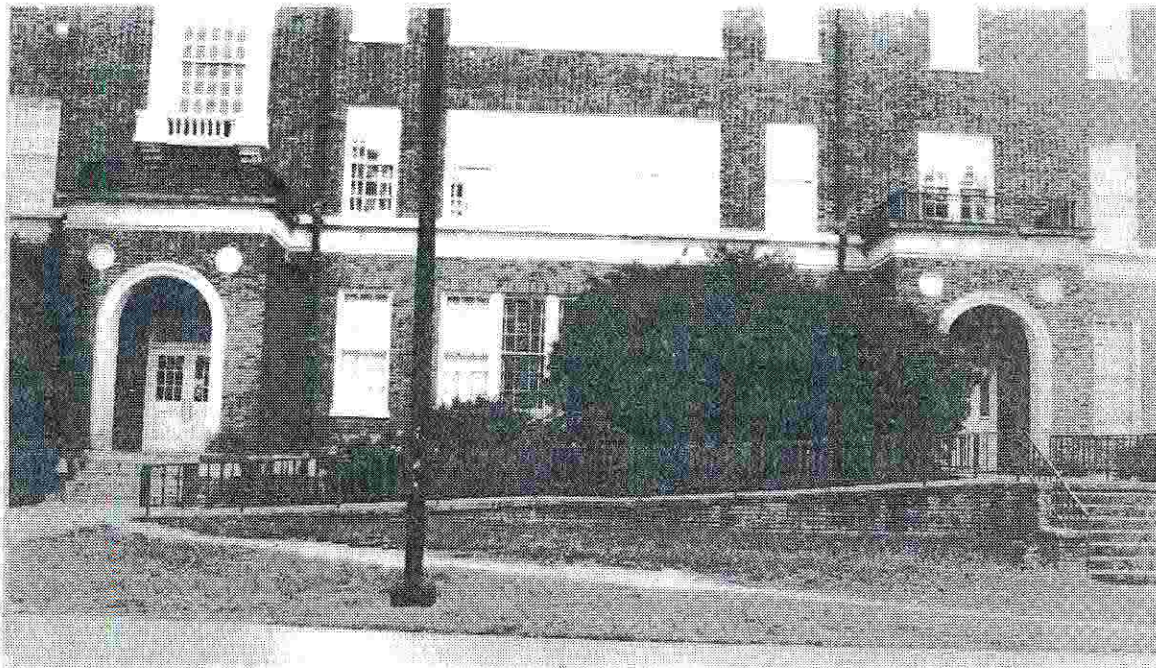


Figure 12: The handicapped ramp on the west side of Riggs Hall detracts from the symmetry of an important R. E. Lee building. It should be relocated or redesigned to be more compatible with the original design..

2E. All historic structures should promote energy efficiency, re-use of materials, and functional utility and convenience to the greatest extent allowable without compromising the integrity of their historic character.

Visibly inappropriate elements within the historic district are limited at present, and need to be avoided in the future. The Hardin Residence (Trustee House) has a visible window air conditioning unit that can be seen from Fort Hill that should be replaced with a concealed unit.

The visual survey of historic character indicated that modern windows did not substantially alter the historic character of buildings. Even fixed aluminum framed windows, as at Tillman Hall, were seen as neutral rather than negative. Wherever possible, however, new windows should resemble historic windows.

From remaining examples and historic photographs, it appears that most early windows were multi-paned and had non-metallic, white or light-colored frames and mullions. New windows should have non-metallic opaque finishes in light colors or white, and should have the same pane arrangement as the original windows.

Air-lock entry units at Sikes Hall, especially the one in the rear, are functionally effective, but project outward from the facade. Interior air-locks are more sympathetic, and should be used wherever possible.

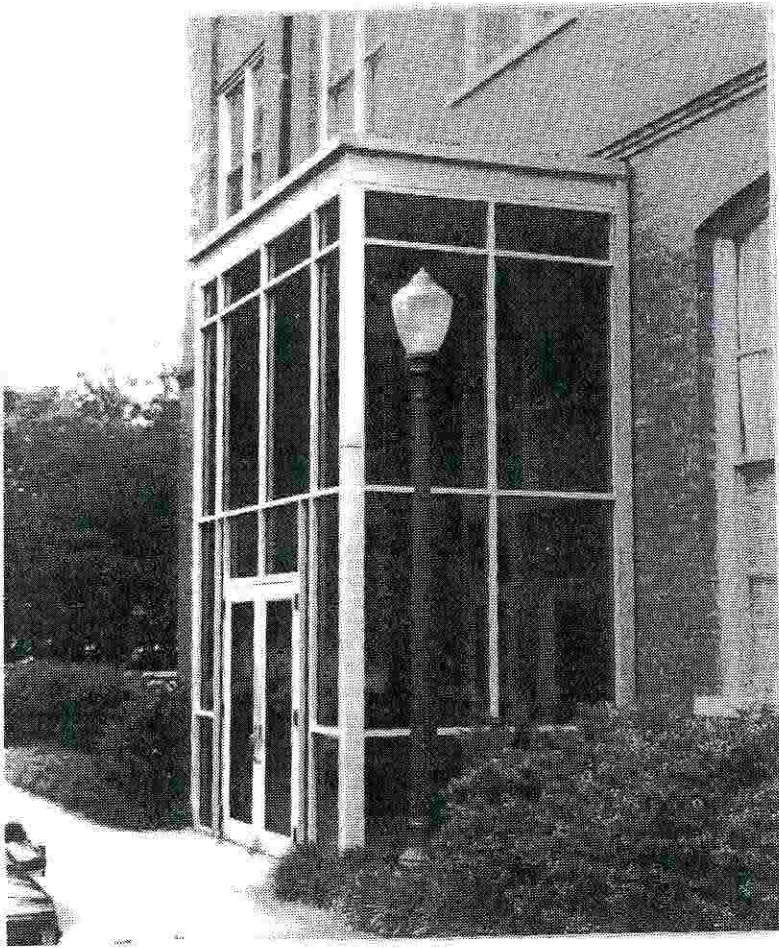


Figure 13: A glass and metal entry structure on the rear of Sikes Hall projects awkwardly from the facade. Interior air-locks should be used if possible.

2F. Except for Fort Hill, its outbuildings, and Hanover House, preservation of exterior facades should be primary. Interior features should be preserved if possible, but modifications should not be subject to review unless interior changes are visible on the exterior of the building.

Interiors of Fort Hill and Hanover House should be researched and studied as carefully as the building exteriors. Where possible, all interior finishings and features should be restored, and furnishings should be original or appropriate to the time period of the structures.

Riggs Hall has many original interior features including blackboards, picture rails, terazzo floors with rolled base trim, and original door and window hardware. The door hardware does not meet modern codes, and will need to be replaced with new lever handle fixtures at all classrooms, laboratories and offices. Examples of the fixtures should be retained at closets and service areas or other non-critical locations. Moldings should be replicated in the course of re-arrangement of non load-bearing interior walls. The old architecture library space features custom-designed cabinetry and decorative woodwork including ornate crown molding. A modern sheetrock wall through the middle of the room should be removed to restore this significant interior space. Suspended ceilings, piping and fluorescent lights in Riggs Hall protrude down below the tops of the windows, affecting the exterior image of the facade. They should be relocated.

In some additional buildings, aluminum foil or other reflective or opaque materials have been placed in south-facing windows to block sunlight and heat. Most installations are improvised and temporary, and do not permanently modify buildings. Installation of appropriate blinds provides a more attractive and durable solution.

3: LANDSCAPING AND OPEN SPACE

The relationships between the buildings and the landscaped open spaces between them help define the character of the campus, and must be preserved, maintained, used and developed carefully.

Landscape resources such as Bowman Field, Presidents' Park, the Tillman / Hardin / Fort Hill Quadrangle, and various view corridors should be protected to maintain the historic approach to and relationships between historic campus buildings. Relationships should be maintained by the following steps.

3A: New structures should not be placed in the Historic Districts so that they compromise views of any significant facades of historic structures.

The temporary east campus store, for example, obscures much of the west facade of the Sheep Barn. The Fernow Street Cafe, which obscures part of the visible south side of Riggs Hall, and the chemistry building, which obscures the entire south facade of Sistine Hall, are less severe because the rear facade (generally the south) of Rudolph E. Lee's buildings are the least significant facades.

Bowman Field, the Tillman / Riggs quadrangle, and Presidents' Park are essential to viewing and experiencing the relationships of buildings in the oldest parts of the campus and should have no new buildings at all.

3B: While streets, walks, and plazas can contribute to the functional utility of the campus, they should emphasize an open, simple landscape appropriate to the era of the surrounding buildings.

The main part of Bowman Field is so sensitive that even the installation of walks could destroy the space. Sidewalks around the edges of the field should be the only paved walkways allowed. No new plazas, monuments, or statuary should be allowed with the exception of the Military Heritage Plaza near Tillman Hall and the Mell Hall plaza.

Even well designed functional landscape features can be inappropriate in the historic areas. The plaza northwest of Hardin Hall is much too urban in character to fit in the Tillman / Hardin / Riggs / Fort Hill quadrangle, and should be replaced with a simpler treatment. The Carillon Bell garden works with the formal axis of the outdoor theater and Cooper Library, but is too formal and structured to fit comfortably with Bowman Field and the critical Sikes - Tillman axis. Urban spaces, if they are used, should be placed only at the extreme edges of the historic area.

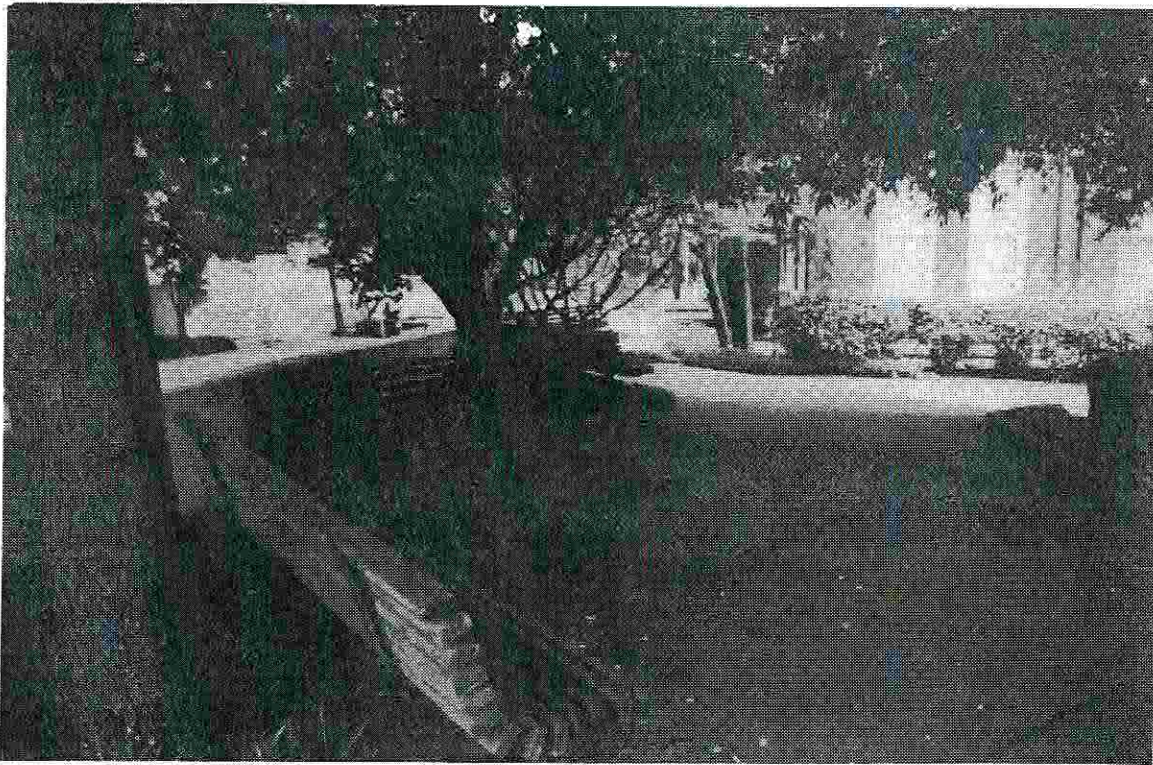


Figure 14: The seating area and plaza northeast of Hardin Hall is too formal and “urban” to fit comfortably in the Tillman-Hardin-Riggs-Fort Hill quadrangle. It should be redesigned to create a simpler and more open landscape.

Since key areas such as Bowman Field and the Tillman / Hardin / Riggs / Fort Hill quadrangle were developed before the automobile era, streets are historically inappropriate. If they cannot be avoided entirely, their impact should be minimized by prohibiting on-street parking and narrowing the pavement surfaces as much as possible. The Sasaki Associates proposal to narrow roads to "Carriageways" has great merit, particularly in the Tillman / Hardin / Riggs / Fort Hill quadrangle, but possibly along Fernow Street as well.

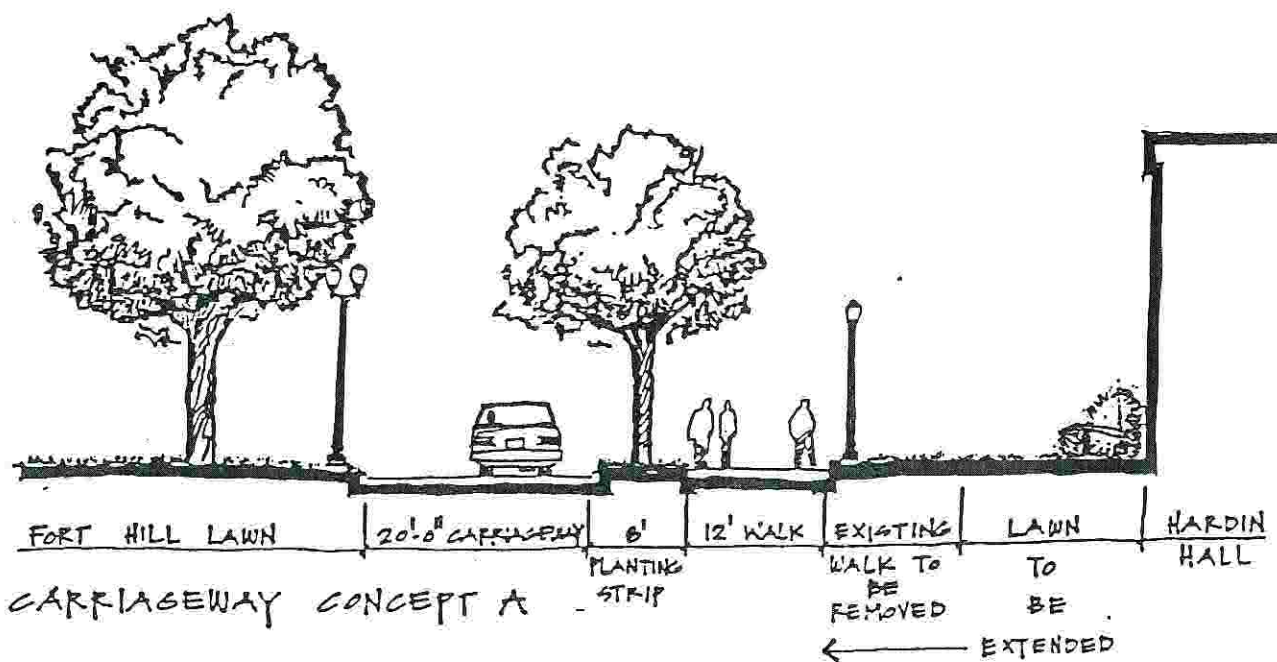


Figure 15: The Carriageway Concept, developed by Sasaki Associates in 1988, could improve the area near Hardin, Olin and Brackett Halls and could be extended by Riggs and Sistine Halls and down Fernow Street.

3C: Functional site elements such as parking lots, trash receptacles, dumpsters, traffic lights, traffic signs, air-conditioning units, bus shelters, and utility lines should be minimized in the historic district. Where they must be used, they should be carefully placed and screened to be as inconspicuous as possible.

All utilities in the historic district should be placed underground.

Despite its clean, open design, the bus shelter near Olin and Hardin Halls was considered by visual survey respondents to have a negative effect on historic character. If possible, it should be relocated to the opposite end of Olin Hall near the walkway to Cooper Library.



Figure 16: The Bus shelter at Olin and Hardin Halls is a simple structure, but was considered obtrusive in the visual survey. It could be relocated to the south end of Olin Hall near the walkway to Cooper Library. Maintenance should include removal of excessive flyers and notices taped to the glass panels.

Existing traffic lights suspended from overhead wires near Sikes and Mell Halls partially block visitors' views into the historic campus and should be replaced with pole-arm structures in bronze or dark brown.

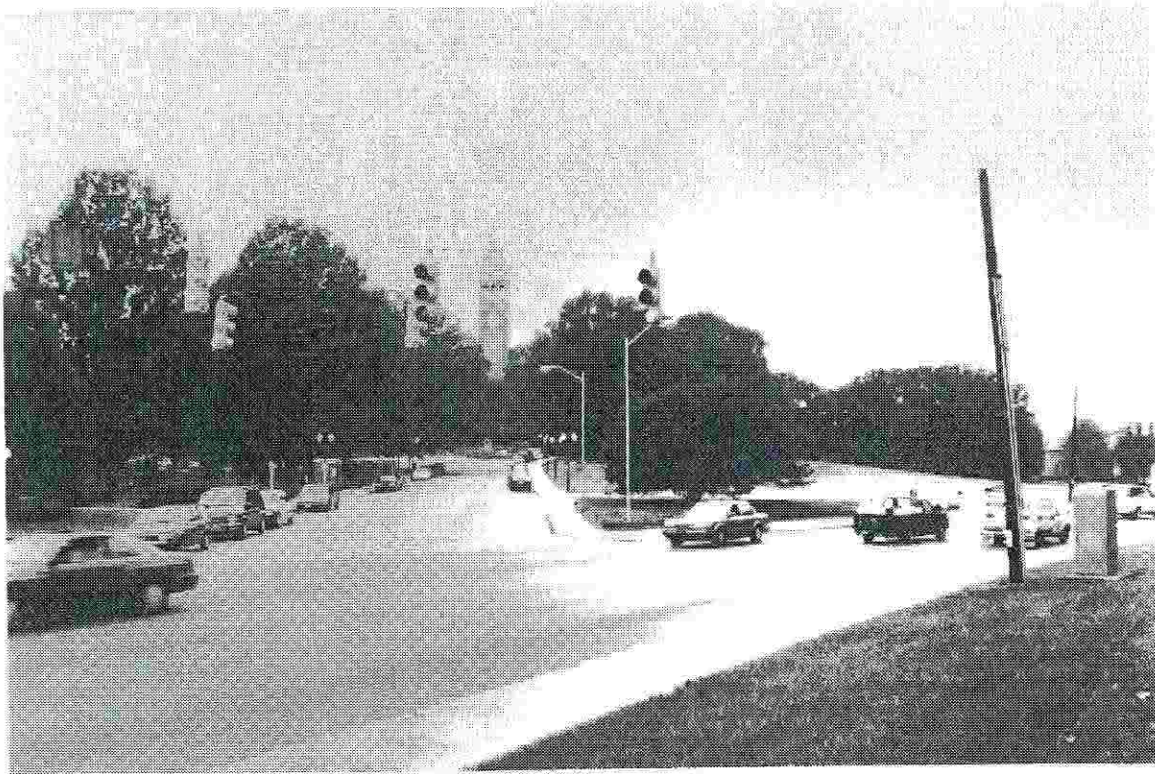


Figure 17: Traffic signals suspended from overhead wires near Bowman Field should be replaced with pole-arm fixtures in bronze or dark brown.

There are few dumpsters or other similar fixtures in the historic district. One dumpster is located behind Sikes Hall and is visible from Sikes, Long Hall, and SC 93. It should be relocated to a less conspicuous location or carefully enclosed in a wall or landscaping. A second dumpster in front of Fort Hill should also be relocated or enclosed.

Traffic signs are limited in number, but are standard metal signs mounted on unpainted metal posts. Decorative cast iron fixtures are preferred, but existing signs could be improved by painting posts and sign backs bronze or brown to match campus signage.



Figure 18: Dumpsters, such as the one in the parking lot behind Sikes Hall, should be relocated or carefully screened by brick walls or landscape materials.

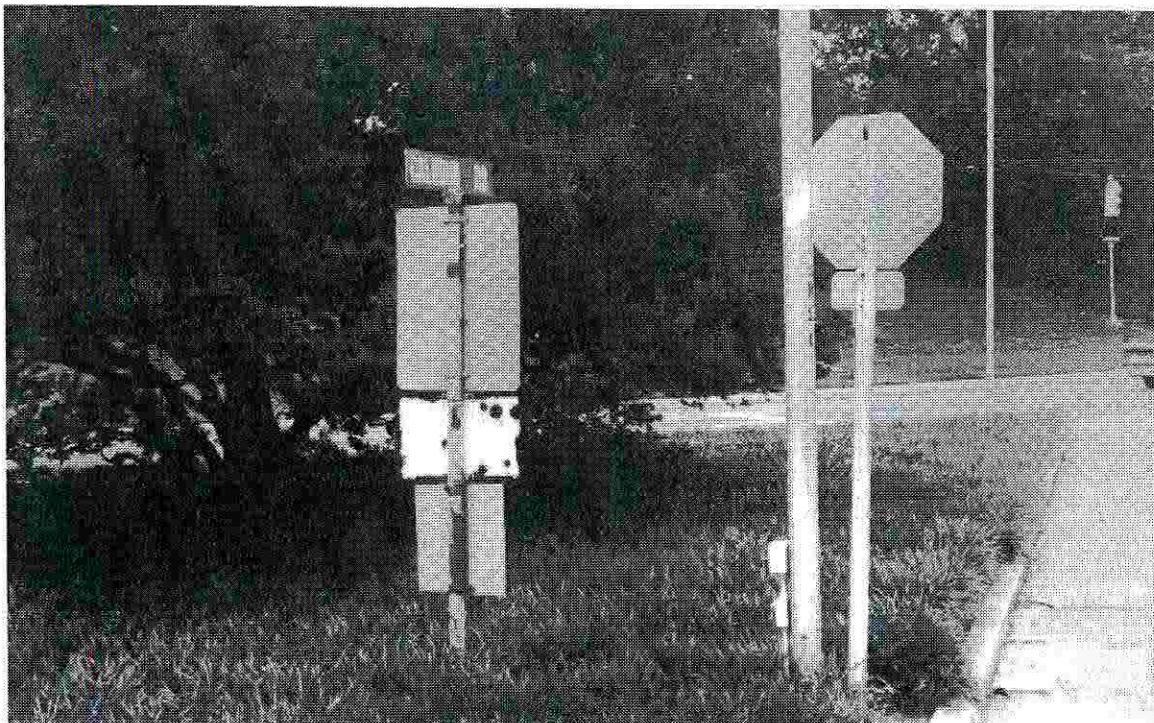


Figure 19: Traffic signs, such as these in front of Sikes Hall, are unattractive, particularly from the rear. They should be replaced with decorative cast iron sign structures or be painted dark brown to match university signage.

Walls are needed at many locations due to changes in grade, raised landscape areas, or pedestrian safety. Brick was used historically for walls, but stone was also used at the Fort Hill spring house and in front of Sistine Hall. Either material can be appropriate for new installations within the historic area. Brick walls may include shaped bricks such as water table and cap bricks. Accents can include limestone, cast stone or granite to complement adjacent buildings. While brick is appropriate, it can be overdone in such a way as to be obtrusive, as some commentators have advised concerning the Carillon Garden. Eighteen inch high walls may be topped with brick or stone to form seating walls. Concrete or stucco walls are more modern, do not have historic precedent, and are not appropriate in the historic district.

3D: While trees and landscaping can add to the character and beauty of the campus, landscape features should not obscure historic relationships between buildings.

All changes to Bowman Field, for example, should ensure that traditional views of Tillman, Godfrey, the YMCA, Sikes and Mell Halls are preserved. The southern and western edges have historically had trees, but no trees should be placed on the northeast edge along SC 93.

Trees by the alumni center and Clemson house are so dense that they block significant views of Bowman Field and Tillman Hall. Selective thinning to create view corridors should be considered while preserving memorial trees.

The view corridor between the fraternities behind Godfrey Hall terminates at the Fike Recreation Center, but again, is blocked by landscaping.

3E: Landscape resources have historic merit in their own right, and should be maintained to respect the historic landscape character.

The tree lined allee from Tillman Hall to Riggs Hall helps define the historic relationship between the buildings and should be preserved.



Figure 20: The allee of trees between Tillman Hall and Riggs Hall is an important landscape feature that should be preserved in its own right.

Clemson also has several **state record trees**, including an 82 foot winged elm near hopewell, and the Centennial Oak, which is a state champion bur oak. These trees should be protected carefully, and replaced with similar trees in the event of death or destruction by storms.

Plant material markers help raise the overall level of consciousness within the campus on the importance of landscaping and natural systems. They would be installed by the Horticulture Department in accordance with plans developed jointly with the Campus Master Planning Office.

Landscaping at Fort Hill should be documented and dated back to the era of John C. Calhoun and Thomas Green Clemson. Rows of eastern Red Cedars (*Juniperus virginiana*), for example, once extended down both sides of present day Fernow Street. Remaining trees should be preserved, and missing trees should be replaced.



Figure 21: Fort Hill in the time of Thomas Green Clemson (seated in front of the house) was much more informal and open than it is now.

Site lighting can also raise sensitive issues. The standard Clemson historic fixture (Antique Street Lamps, Inc, Austin Series, dark bronze) is appropriate to the early years of Clemson, and should be used as appropriate in either single or twin luminaire fixtures. Decorative lights on buildings should be avoided, as should landscape up-lights or down lights. Exterior lighting is appropriate only for Tillman Hall, Sikes Hall and Fort Hill, which are the most important buildings on the campus and are highlighted for the benefit of evening and night-time visitors.

4: MAINTENANCE

The cumulative effects of routine maintenance and minor alterations should be considered as seriously as major rehabilitation and new construction.

Appropriate maintenance schedules and specifications should be prepared for each structure, whether maintenance is performed by Clemson University employees or by outside contractors. While the current staff includes many sensitive and talented craftsmen, new maintenance staff should be trained in appropriate maintenance techniques and should also be given clear guidance in which techniques NOT to use.

Guidance on specific procedures should refer to the Preservation Briefs prepared by the Department of the Interior.

Specific elements include the following.

Painting

Normally, brick, stone, mosaics or other materials that have not been painted should not be painted. Brick that has been painted should be repainted as required to avoid peeling of paint. Some wood detail work may have accumulated excessive layers of paint that obscures historic detail. Paint should be removed as gently as possible prior to repainting. Detail work other than wood that has been painted should have the paint removed by the gentlest possible means.

Historic woodwork may require repainting at shorter intervals than newer woodwork. Care should be taken, however, to avoid obscuring historic wood details with too many coats of paint. Surface preparation should be as thorough as possible without damaging the underlying woodwork.

High gloss paints should be avoided where possible.

Paint colors should remain consistent, or, where possible, should be returned to documented earlier colors.

Brickwork and Stonework

Brick should be repointed with mortar that matches the original in color, texture and hardness. Mortar mixes should be documented for each building, so that they can be used consistently in the future. Cement mortars should be avoided unless used on the original structure.

Brick should be replaced with matching brick. New brick should match the color of brick in surrounding buildings or landscape areas. Multi-color brick is preferred, reflecting the richness of brick used in R. E. Lee buildings. Shaped bricks are useful for some building and many landscape applications. If brick must be special ordered, replacement bricks or additional bricks should be warehoused for future use.

Any cracks in stonework, carved stone elements, cast concrete or mosaics should be studied by expert consultants to determine an appropriate fill material that will be durable, match existing features, and not damage original features. They should not be randomly filled with caulk or grout.

Repair or replacement of exterior doors and windows

Doors and windows often need to be replaced due to deterioration, for safety, or for energy efficiency. While the visual survey of historic character indicated that openings are not substantial character-defining features, doors and windows should not be totally sealed up, and where possible, should use replacements that are similar in character to original doors and windows. Features include the number of panes in a window, the size and detail of mullions, and the color of framing materials.

Repair or replacement of roofing, gutters and eaves

Wherever possible, roofing should be repaired rather than replaced, especially for clay tile roofs. It should be repaired with materials that are similar in color, texture, shape, and reflectivity.

Where a hipped roof has been destroyed and replaced with flat built-up roof as at Hardin Hall, every effort should be made to restore a hip roof. The high cost may be partly offset by reduced maintenance costs compared to flat roofs.¹ Because Sikes Hall had a flat roof installed in the 1920's restoration, it could either be left flat or restored to the earlier configuration.

While interior gutters on many buildings pose maintenance problems, exterior gutters would significantly alter the facades, and should be avoided. Drain leaders and downspouts, especially on the Rudolph E. Lee buildings, are carefully planned design features, and should be repaired, or if absolutely necessary, replaced, with identical materials.

¹ At Cornell University, the cost of restoring a hipped roof was covered by using five years worth of maintenance funds for the existing flat roof.

5: ARTWORKS AND DECORATION

Historic artworks, sculpture, mosaics, and decoration are essential to the understanding of the properties, their relationship with their original context should be maintained.

Wherever possible, artworks should not be removed or relocated from their original location. Where possible, elements that have been removed should be restored to their original location. If the works must be moved or cannot be restored to their location, interpretive elements such as signs should be used to relate the works to their original site.

The relocation of John Carrol's mural from Mell Hall to Sikes removed the mural from its original context, which was important to the understanding of the work of art and the building. A visitor to Mell Hall may have no idea that the mural was ever there, though there is a sign in Sikes indicating the mural was originally in Mell Hall.

Some elements of buildings, such as the relief sculptures at Long Hall, have significant artistic importance in their own right.

APPENDIX A:

The Secretary Of the Interior's Standards for Rehabilitation

The following Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

(1) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

(2) The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

(3) Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

(4) Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

(5) Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

(6) Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and where possible, materials. Replacement of missing features shall be substantiated by historic, physical, or pictorial evidence.

(7) Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

(8) Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

(9) New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

(10) New additions, exterior alterations or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

APPENDIX B

Partial Index to Preservation Briefs

The Heritage Conservation and Recreation Service, US Department of the Interior

- 1 "The Cleaning and Waterproof Coating of Masonry Buildings"
- 2 "Repointing Mortar Joints in Historic Brick Buildings"
- 3 "Conserving Energy in Historic Buildings"
- 4 "Roofing for Historic Buildings"
- 6 "Dangers of Abrasive Cleaning to Historic Buildings"
- 7 "The Preservation of Historic Glazed Architectural Terra-Cotta"
- 8 "Aluminum and Vinyl Siding on Historic Buildings"
- 9 "The Repair of Historic Wooden Windows"
- 10 "Exterior Paint Problems on Historic Woodwork"
- 11 "Rehabilitating Historic Storefronts"
- 12 "The Preservation of Historic Pigmented Structural Glass"
- 13 "The Repair and Thermal Upgrading of Historic Steel Windows"
- 14 "New Exterior Additions to Historic Buildings: Preservation Concerns"
- 15 "Preservation of Historic Concrete: Problems and General Approaches"
- 16 "The Use of Substitute Materials on Historic Building Exteriors"
- 17 "Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character."
- 18 "Rehabilitating Interiors in Historic Buildings"
- 19 "The Repair and Replacement of Historic Wooden Shingle Roofs"
- 20 "The Preservation of Historic Barns"
- 21 "Repairing Historic Flat Plaster- Walls and Ceilings"
- 22 "The Preservation and Repair of Historic Stucco"
- 23 "Preserving Historic Ornamental Plaster"
- 24 "Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches"
- 25 "The Preservation of Historic Signs"
- 26 "The Preservation and Repair of Historic Log Buildings"
- 27 "The Maintenance and Repair of Architectural Cast Iron"
- 28 "Painting Historic Interiors"
- 29 "The Repair, Replacement and Maintenance of Historic Slate Roofs"
- 30 "The Preservation and Repair of Historic Clay Tile Roofs"
- 31 "Mothballing Historic Buildings"
- 32 "Making Historic Properties Accessible"
- 33 "The Preservation and Repair of Historic Stained and Leaded Glass"
- 34 "Applied Decoration for Historic Interiors"
- 35 "Understanding Old Buildings: Architectural Investigation"
- 36 "Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes"
- 37 "Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing"

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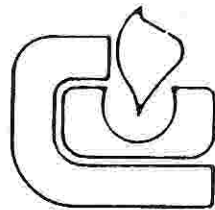
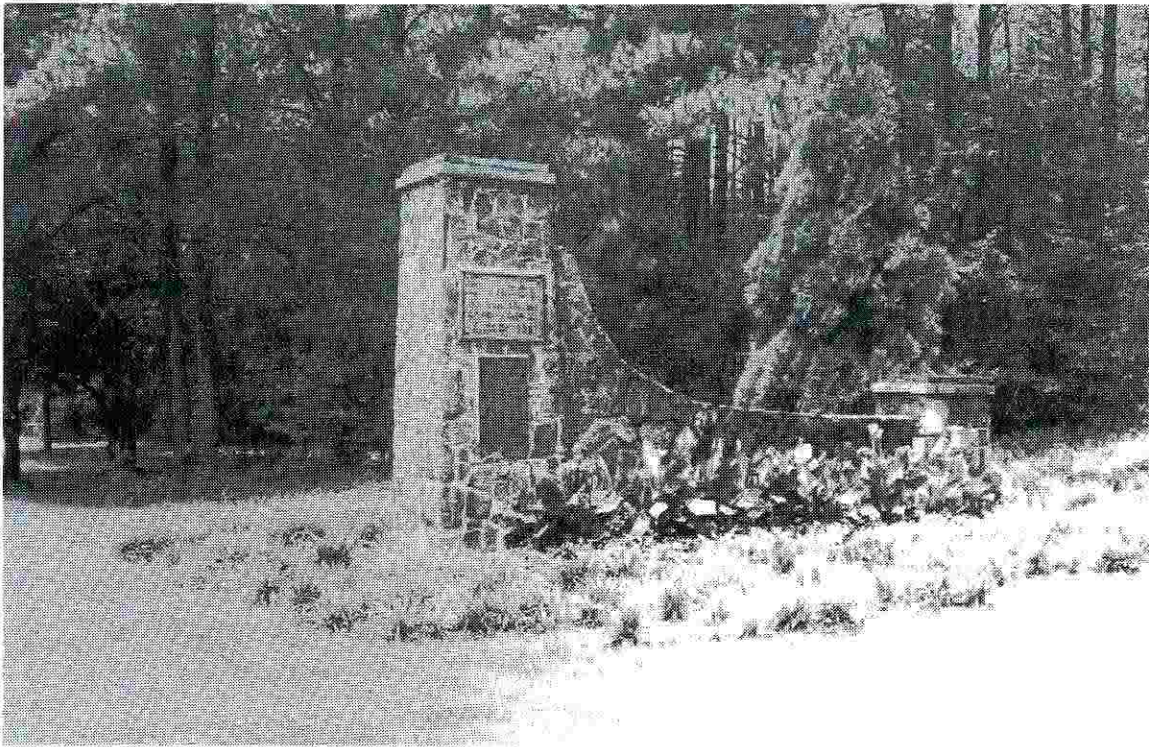
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