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Executive Summary
Plan is a comprehensive study intended to guide campus growth. As the physical representation of the Fourth Century Initiative, the Master Plan will enable the College to become a preeminent liberal arts and sciences institution, where the facilities support the vision for academic excellence. It provides locations for projects that respond to immediate needs, as well as those many years in the future. The plan responds to programmatic relationships, the creation of open spaces and pedestrian connections, landscape features, parking and transit...
needs, as well as deferred maintenance, service, and utility issues. This flexible document can accommodate changes in program, priorities, and funding. It has been formed based on principles that are expressive of the College’s mission, history, and unique place.

Fourth Century Initiative

The College of Charleston is ranked among the top liberal arts and sciences institutions in the South. Recognized for its excellent faculty, innovative programs, and service-oriented staff, the College aspires to become nationally prominent and to serve as a model for other public colleges and universities. To achieve this goal, the College of Charleston has embarked on the Fourth Century Initiative, which strengthens four key areas: faculty, academic programs, facilities, and the overall student experience. The Fourth Century Initiative builds on the College’s greatest strength—a focus on the total academic and co-curricular experience of each student, including a commitment to provide a private college experience at a public college cost.

The campus is an elegant blend of classical, colonial, antebellum, Victorian, and modern architecture within a beautiful arboretum in downtown Charleston. The facilities strive to remain technologically state-of-the-art while preserving a sense of history. As beautiful as the campus is, the facilities are stretched beyond capacity. The campus was designed and built for 5,000 students but is serving more than 10,000. This has led to numerous deferred maintenance issues, crowded and obsolete facilities, and a relatively low percentage of on-campus housing.

The Fourth Century Initiative addresses the demands of an evolving institution by renovating some buildings and constructing others. For example, a new residence hall was completed fall 2002, the Multicultural Center will open in spring 2004 and the Addlestone Library will open in summer 2004. Four buildings are in design or under construction to meet the specific needs of the School of the Arts, School of Business and Economics, School of Education, and School of Sciences and Mathematics. These new facilities, three of which have already received funding from state and private sources as well as institutional funds, will furnish up-to-date facilities and learning tools.

A student-centered approach focuses on the renovation of the Stern Student Center. Students were surveyed about what they valued in a holistic living/learning environment, and they were overwhelmingly in favor of improved food services and expanded fitness facilities. Under the Fourth Century Initiative a new food court replaced the old snack bar and now students can choose from Java City, a sushi bar, Burger King, and Chick-Fil-A. The new fitness center in the Stern Center greatly expands the number of exercise equipment available to students. Further renovations to the Stern Center are planned for the summer of 2004.

Something less visible, but equally important, is integrating new technology into the learning environment. Students can connect to the campus Web site and the Internet by laptop in a variety of places—indoors and out, including eateries and the student center—by accessing the new campus wireless network. This accessibility allows students to register for classes, check their grades, communicate with the faculty, post a resume with Career Services, or make a list of graduate programs to discuss with their advisors. More “smart” classrooms and computer labs with the latest equipment and software further enhance the learning experience. The Fourth Century Initiative identifies the key issues facing the campus. The Master Plan provides a framework to support the campus well into the future.
Planning Principles

The College of Charleston's unique qualities and the historic nature of its context required the Master Plan to respond to many important issues. In this effort, the Plan maintains the characteristics that make the College truly unique and strives to perpetuate them. To guide the planning process, the following planning principles were established:

Large University/Small College Feel

- Reinforce the benefits of a university with the intimacy of a small college.
- Organize the campus to foster interaction among academic, social, cultural, recreational, and service functions.
- Emphasize the total academic and co-curricular experience.

Profoundly Unique Sense of Place

- Respect the historic aspect of Charleston.
- Add to the rich architectural and landscape heritage of the City and the campus.
- Define the edges of the College while maintaining the connections to and from the City, primarily its neighborhoods.

Student-Centered Campus

- Increase living and learning opportunities.
- Create spaces and places for serious study and social interaction.
- Improve access, way finding, safety, and the pedestrian experience.

Facilities Reflective of Academic Excellence

- Update outdated facilities and provide new spaces to meet the mission of the College.
- Improve organization of campus uses which consolidate departments, programs, student residences, and services.
Design Guidelines

The College and the City of Charleston developed congruously. The City remains a model in the planning for the College's development. The following design guidelines are integral to the success of the Master Plan and should be followed in all future projects on the campus.

Maintain the urban fabric

- Respect and follow the existing relationship between the buildings and the streets.
- Be conscious of the many scales and building types within the City, and build within an appropriate hierarchy.

Preserve the historic context but contribute to it in a meaningful way

- Follow the general principles of proportion, scale, massing, and materials palette established by the existing buildings and apply them to all construction.
- Reserve the heightened moments of hierarchy to address axial arrangements and relationships with civic open space paired with appropriate programs.

Enhance and extend the system of open spaces

- Maintain the variety and quality of the open spaces within the established hierarchy.
- Improve the secondary pedestrian connections through the establishment of mid-block connections and interior gardens.

Integrate the buildings with the landscape

- Continue the language of site walls and the practice of foundation plantings to support the established garden environment.
The Plan  The Plan is the culmination of an extensive and collaborative planning process. Within the specific programmatic elements and building footprints lie the overarching concepts and principles. It is the intent of the Plan to propose growth in an organized and logical manner in accordance with the historic context and the larger goals of the College. Major objectives include strengthening the academic core, increasing on-campus student housing, improving student life facilities, and maintaining the qualities of the historic campus in future projects.

Perhaps the most critical component of the Master Plan is the newly formed relationship to Calhoun Street. This long-perceived barrier is a challenge as well as an opportunity for the College. The Plan attempts to embrace the opportunity and to solve some of the major issues presented by this primary street. The location of the Addlestone Library, the new Science Center, the Arts expansion, future student housing, student activity space, and the edge of the existing campus along Calhoun Street create an excellent mixed-use environment with the potential to be a major center of activity. An open space will connect the new Student Center to the Mall and to Randolph Hall. Simple measures of improving the crosswalks and installing a mid-block crossing will facilitate pedestrian movement. With the City's improvement plans and the potential uses by the College, Calhoun Street can become an important point of entry and serve as a "front door" to the College.

One of the major goals of the Master Plan is to emphasize the benefits of a larger university while maintaining the intimacy of a small college. The historic space of the Cistern has long represented this idea. The further development of administration and academic buildings around the core strengthens the Cistern as the academic heart of campus.

The core of the campus becomes a wonderful opportunity for interaction and for facilitating academic, social, cultural, and recreational activity. The inclusion of multiple programs such as student housing, an enhanced dining facility and the renovated Stern Center encourage such interaction.

An improved system of pathways and landscape treatments helps connect campus elements. The Final Plan emphasizes College Way as a new axial spine, which extends from Glebe Street through the heart of campus, and
across Calhoun Street into the newly formed residential space. This pedestrian path links the academic spaces to the residential areas as well as the historic core. Secondary paths in an east-west direction connect to other points on campus. Improvements to the sidewalks along St. Philip and Coming Streets complete this system and help define the edges of campus while improving connections to the City. This hierarchy of paths helps create a clear, safe, and active pedestrian experience.

As the completion of development, the campus will have one strong and historic core, with multiple secondary centers of activity. The new Addlestone Library and the future Science Center will establish strong sectors of study at the intersection of Calhoun and Coming Streets. The future Student Center, open space, and housing on the BellSouth Property will establish a student life complex and connect to the existing residential halls along St. Philip Street. Pedestrian and open space links to these integral components are essential for a sense of cohesiveness.

With the construction of student housing in the core and on the periphery, the College of Charleston will develop a variety of living environments. First-year students will live adjacent to academic and social activities. The development of student housing north of Calhoun Street will bring more upperclassmen on campus and foster a strong living/learning environment. As students progress, they will be offered more independent living opportunities at the edges of campus. All of the residential areas will connect through dispersed student centers and daily academic and co-curricular activities.

Phasing

The Master Plan proposes phasing projects over time, dependent on the immediate needs of the College, funding, strategic goals, and the availability of land. The first of the four phases accomplishes the projects underway or in the planning process, such as the School of Business, the Arts expansion, the School of Education, the Athletics Center expansion, a new Residence Hall and Wellness Center, and the renovation of the Lightsey Center, McConnell Hall, Craig Hall, and the Stern Student Center. Landscape projects with the greatest impact on the campus environment also will be done.

The second phase replicates projects in the relatively near future, such as the Science Center, psychology building, residence hall, as well as the renovation of Maybank Hall and the R. S. Small Library.

Phase three includes construction in the core campus of the mixed-use building with student housing and a parking garage, and an academic building.

The fourth phase proposes the development of the BellSouth property north of Calhoun Street into student housing and the Student Union. Craig Hall eventually will be replaced with a new academic building. Additional housing and academic space could be built along the south side of the library green.

The Master Plan establishes a student-centered campus that offers multiple opportunities for study and social interaction within a context that respects the historic nature of Charleston and adds to the architectural heritage of the City. The result is a campus that remains a unique place while meeting its vision of academic excellence.
Planning Process  The Campus Master Plan is the result of a collaborative effort between the College of Charleston and many members of the Charleston community. The process was led by the Steering Committee composed of President Lee Higdon and the senior staff. Other groups of faculty members, staff, and students met at regular intervals for two-day workshops to guide the Plan’s development. Campus user groups, including neighbors and city officials, were also integral participants in the process.

The year-long planning effort consisted of the following five phases:

Observations
The initial phase measured the quantitative and qualitative aspects of the campus and represented them in a series of analytical diagrams. A set of principles was formed at the conclusion of the analysis to represent the culture and physical environment of the campus. These principles were the foundation for the Concept Plan.

Concept Development
The Concept Plan represented the planning principles and the results of the information gathered in the Observations Phase. It served as a diagrammatic illustration of the existing conditions as well as the broad intentions of the Master Plan.

Precinct Studies
In order to study the campus in more detail and to test ideas and specific spatial organizations, the campus was divided into smaller precincts. Different ideas were presented and discussed for each area until a consensus was reached. The chosen schemes were then refined and considered again at the scale of the whole campus.
Final Campus Plan
The Final Plan is the result of the findings of the previous phases and represents the proposed buildings, open spaces, and landscape treatments. Perspective views were generated during this phase based on the proposed Plan to illustrate the experiential qualities as well as the physical appearance of the campus. A series of diagrams described how the Plan could be implemented over time.

Design Guidelines
The Design Guidelines provide broad recommendations to help direct the development of projects in the future. The guidelines attempt to maintain the intentions of the Plan and to protect the unique qualities of the College of Charleston. They address issues concerning site planning, building massing and proportion, materials, and more specific landscape treatments.
Observations
Historic Development. The College of Charleston, founded in 1770 and chartered in 1785, is the oldest institution of higher education in South Carolina and the thirteenth oldest in the United States. In 1837, the City of Charleston took over the financial support for the College and proposed that it be "a popular institution, intended for the great body of the people." This intimate relationship with the City and the people of Charleston endures to this day.

The first classes were held in the home of Reverend Robert Smith, one of the founders, which still exists as the president's house. The College continued to grow around the original campus center known as the Cistern and framed by Randolph Hall, Towell Library, and Porter's Lodge. The largest stage of growth did not occur until the 1970s, when the College became a state institution. At this time, the College completed a facilities expansion study intended to accommodate a population of 5,000 students. Very few new structures have been built since the rapid expansion during the 1970s. Today the campus enrollment is more than 10,000 undergraduate and graduate students.

Throughout its history, the College has cherished its relationship with the historic City of Charleston. As the College continues to plan its growth, it does so with a dedication to maintaining those characteristics that have defined its unique campus over its three hundred year history.
Timeline of events in the development of the College of Charleston

1780

1710 Land is given for a Free School and later reserved for the College of Charleston.
1785 Charter is enacted establishing a college in or near the City of Charleston.
1789 Six students from the Rev. Robert Smith's academy enroll as the first students in the College of Charleston and attend classes in the first College building.
1823 Property is granted to the Trustees of the College of Charleston in the Parishes of St. Philip and St. Michael's.
1828 "The trustees met to attend the ceremony of laying the Corner Stone of the new College Building".
1836 Ordinance is established providing an annual appropriation for the College from the City of Charleston.
1837 Resolution makes the City responsible for the financial support of the College.
1849 "That gas be introduced into the College chapel and that it be lighted by eight burners with glass shades".
1850 Wing expansions built on Randolph Hall; Porter's Lodge is constructed.
1856 Towell Library is built.

1886 Earthquake damages many of the College buildings, including Randolph Hall.
1918 The College of Charleston accepts the first class with women students.
1927 Alumni stairway and entrance erected on the front of Randolph Hall.
1939 Willard Silcox Physical Education and Health Center is built.
1961 Craig Cafeteria and Residence Hall is built.
1967 Busier Rivers Residence Hall is built.
1968 College accepts first class with African American students.
1970 College incorporated into the South Carolina Public Higher Education System.
1970 College of Charleston Master Development Plan proposes expansion of existing facilities to accommodate 5,000 students by 1980.
1972 Robert Scott Small Library is built.
1973 Maybank Hall is built.
1973 Rutledge Rivers Residence Hall is built.
1974 Science Center and Physician's Memorial Auditorium are constructed.
1975 Stern Student Center opens.
1980

1979 Albert Simons Center for the Arts is built.
1980 McConnell Residence Hall is built.
1987 Joe E. Berry Residence Hall opens.
1993 Tate Center is built.

2002

2002 McAlister Residence Hall opens.
2003 New Library is under construction.
Existing Campus Organization

Analytical Diagrams
To better understand the physical characteristics of the College of Charleston, various aspects were documented and closely examined. Qualitative and quantitative information gathered during this phase are represented in analytical diagrams to follow.

Regional Context
The College of Charleston lies in the center of the Peninsula, west of King and Meeting Streets. Although the College originally sat on the outskirts of the City, Charleston has grown northerly and fully encompasses the land of the College. The historic district as defined by the City of Charleston now includes the majority of College property.

The City is divided into a collection of neighborhoods, each with its own identity and characteristics. The majority of the College is within Harleston Village and borders Radcliffeborough and Ansonborough.
Building Age

Because of the gradual growth of the College over two centuries, the ages of the buildings vary widely. The original campus core around the Cistern and the older homes purchased at various times by the College represent the historic properties. They range from the Reverend Robert Smith house (1770) to the Towell Library (1856). Within this context, the majority of the remaining campus buildings were built since the 1970s.

Open Space

The College of Charleston often is identified by the character of its original open space, the Cistern, as defined by Randolph Hall, Towell Library, and Porter's Lodge. Beautiful oak trees provide a large canopy and abundant shade and complement the historic buildings. This space is the site of graduation ceremonies and is the iconic and nostalgic heart of the campus. Another major open space is designed to accompany the Addleston Library, to be completed in 2004. The secondary open spaces, including all walkways and semi-private gardens, are similar in character to the Cistern and to the gardens of Charleston. Generally, they are characterized by heavy vegetation, limited extended views, and a unique sense of intimacy.
Pedestrian Circulation

As an urban campus, the College is generally compact, occupying an area within a five-minute walk from the center to any exterior point. It is a single block away from King Street, a major retail center, and Marion Square, a city park. A high concentration of pedestrian movement occurs within internal pedestrian walkways along Green Way, College Street, and the mall between Small Library and Maybank Hall. However, with the growth of the College beyond its original center, much of the pedestrian circulation has moved to Calhoun, St. Philip and Coming Streets. The intersections of these streets carry the most concentrated circulation at their crossing points.

Building Use

The campus is organized around the historic core and within the structure of the existing urban grid. Most of the academic buildings are within the core in the consolidated block defined by Calhoun, St. Philip, George, and Coming Streets. After 1970, the College expanded beyond this boundary and occupied buildings in the adjacent blocks. St. Philip Street and Coming Street continue to be major spines of organization on the campus, composed of academic and residential buildings. The College has continued to grow, specifically in response to student population and the need for housing. The College occupies the majority of the historic homes adjacent to campus and several residence halls are grouped north of Calhoun Street. The campus maintains a strong academic core, with localized areas of academic activity and residential life.

Parking

The majority of parking is in three parking structures on St. Philip Street, in small and dispersed surface lots, and limited on-street parking. To accommodate additional need, the College utilizes off-campus parking at the Aquarium, serviced by a shuttle system. There are few surface lots in the core campus and little visitor parking.
Transportation  The College's transportation issues go beyond roadways and parking. This urban campus requires safe and effective systems for vehicle access, parking, bicycles, pedestrians, and transit, balanced with municipal services for residents and visitors to the Peninsula.
These issues are not isolated. The College must share its transportation system with commuters using adjacent streets to access jobs and homes, as well as significant tourist traffic. Tourism and commerce on the Peninsula depend on access by service trucks. The College's pedestrian and bicycle traffic mixes with and competes with traffic and service vehicles.

With the expansion of classrooms, student housing, and parking north of Calhoun Street, the campus community is more susceptible to conflicts with motor vehicles. The College is charged with providing adequate and safe parking for its community while nearby parking lots are being lost to the development of much-needed academic and residential space.

These transportation challenges are addressed in the Master Plan. The recommendations are the result of collaboration among the consulting team, College, City staff, CARTA, and neighborhood associations.
Space Needs Analysis

The Space Needs Analysis includes a determination of the existing facility utilization, a quantitative evaluation of built space on the College of Charleston campus, and a comparison with recognized space standards.

The identification of space needs was made in relation to existing facilities, using Fall 2002 data and future needs in the target year 2007. The consultant, Paulien & Associates, applied space standards to course and staff data provided by the College to establish guideline space needs. After determining the quantity of space needed, scenarios for program space reallocation were assembled to inform the physical campus planning effort. The results of this analysis and a review of the space guidelines applied are described in the full report along with classroom and laboratory utilization.

The purposes of this study were to:

- Identify and define existing and future space needs based on the Fourth Century Initiative, which projects a reduction in undergraduate enrollment by 300 students, an increase of 50 faculty members, and an increase of 50 staff members.
- Provide space needs at a school or vice presidential level for all units except the School of Humanities and Social Sciences, which was provided at the department level.
- Review and verify space need projections for proposed buildings including the Library, Stern Center, School of Business and Economics, School of Education, School of Science and Mathematics, and School of the Arts.
- Provide base data for the College to allocate or reallocate units within new or existing buildings to most efficiently utilize the campus's capital assets within the parameters of the Master Plan.
Planning Process and Assumptions
The space analysis was performed using a facilities inventory that included the buildings that exist on the campus. The facilities inventory was adjusted for the target year to include the new Addlestone Library, the planned School of Business and Economics Building, the addition and renovation of the Simons Center for the Arts, and the new building planned for the School of Education.

Calculations for target year space needs enrollment assumed that the undergraduate enrollment would decrease by 300 students, faculty would increase by 50, and staff would increase by 50 as described in the Fourth Century Initiative.

The Campuswide Space Needs Analysis identified space needed on campus at current and projected enrollment levels and compared the calculated space needs to existing facilities. The following table outlines the findings.
### Campuswide Space Needs Analysis

<table>
<thead>
<tr>
<th>SPACE CATEGORY</th>
<th>Existing ASF</th>
<th>Guideline ASF</th>
<th>Surplus/ (Deficit)</th>
<th>Percent Surplus/ (Deficit)</th>
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</thead>
<tbody>
<tr>
<td><strong>Academic Space</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classroom &amp; Service</td>
<td>77,337</td>
<td>81,018</td>
<td>(3,681)</td>
<td>(10%)</td>
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<tr>
<td>Teaching Laboratories &amp; Service</td>
<td>44,872</td>
<td>49,771</td>
<td>(4,899)</td>
<td>(78%)</td>
</tr>
<tr>
<td>Open Laboratories &amp; Service</td>
<td>45,567</td>
<td>50,342</td>
<td>(4,788)</td>
<td>(11%)</td>
</tr>
<tr>
<td>Research Laboratories &amp; Service</td>
<td>20,897</td>
<td>33,815</td>
<td>(12,918)</td>
<td>(62%)</td>
</tr>
<tr>
<td>Academic Offices &amp; Service</td>
<td>115,391</td>
<td>136,775</td>
<td>(21,384)</td>
<td>(19%)</td>
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<td>Other Academic Department Space</td>
<td>21,804</td>
<td>15,102</td>
<td>6,702</td>
<td>31%</td>
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<tr>
<td><strong>Academic Space Subtotal</strong></td>
<td>325,858</td>
<td>376,023</td>
<td>(50,165)</td>
<td>(48%)</td>
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<tr>
<td><strong>Academic Support Space</strong></td>
<td>80,028</td>
<td>112,685</td>
<td>(32,657)</td>
<td>(41%)</td>
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<td>Administrative Offices &amp; Service</td>
<td>54,977</td>
<td>143,446</td>
<td>(88,473)</td>
<td>(161%)</td>
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<tr>
<td>Library</td>
<td>52,982</td>
<td>65,734</td>
<td>(12,758)</td>
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<tr>
<td>Assembly &amp; Exhibit</td>
<td>32,467</td>
<td>32,795</td>
<td>(328)</td>
<td>(1%)</td>
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<td>Physical Plant</td>
<td>41,122</td>
<td>50,341</td>
<td>(9,219)</td>
<td>(22%)</td>
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<tr>
<td>Other Administrative Department Space</td>
<td>261,570</td>
<td>409,004</td>
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<td>(56%)</td>
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<td><strong>Academic Support Space Subtotal</strong></td>
<td>362,092</td>
<td>477,517</td>
<td>(115,425)</td>
<td>(34%)</td>
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<td><strong>Auxiliary Space</strong></td>
<td>44,229</td>
<td>90,612</td>
<td>(46,383)</td>
<td>(105%)</td>
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<td>Student Union</td>
<td>2,803</td>
<td>2,803</td>
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<td>0%</td>
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<td>Early Childhood Education Center</td>
<td>1,347</td>
<td>3,020</td>
<td>(1,673)</td>
<td>(124%)</td>
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<tr>
<td>Health Care Facilities</td>
<td>1,347</td>
<td>2,960</td>
<td>(1,613)</td>
<td>(120%)</td>
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<td><strong>Auxiliary Space Subtotal</strong></td>
<td>48,379</td>
<td>96,435</td>
<td>(48,056)</td>
<td>(99%)</td>
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<td><strong>CAMPUS TOTAL</strong></td>
<td>635,813</td>
<td>982,262</td>
<td>(346,449)</td>
<td>(54%)</td>
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</table>

**Application of normative guidelines for the campus identified an overall space deficit of 346,449 ASF at the base year. This is 54% of the existing space on campus. At the target year, with the inclusion of changes anticipated in enrollment, faculty, and staff numbers, and after inclusion of the additional space provided by the construction of the Addlestone Library, the School of Business and Economics Building, the addition and renovation of the Simons Center for the Arts, and the new building planned for the School of Education, the deficit decreased to 235,514 ASF, which is 30% of the existing space on campus at the target year. These overall campus wide findings confirm the comments heard on campus that the campus was built for 5,000 students, yet is serving over 10,000 students.**
The space analysis classified existing space categories on campus into three areas: Academic Space that included Classrooms, Laboratories, and Academic Offices; Academic Support Space that included Administrative Office, Library, Assembly and Exhibit, and Physical Plant Space; and Auxiliary Space that included Student Union and Student Health Care Facilities Space. The scope of work for this study did not include analysis of physical education/athletic or residence life spaces.

**Academic Space**

Analysis of Classroom, Teaching Laboratories, Open and Research Laboratories as well as Academic Office and Other Academic Department Space showed an overall space deficit of 46% over existing space at current enrollments. This deficit decreased to 34% of current space or 123,578 ASF at the target year. Classroom space showed a deficit of 68,077 ASF. This is 76% of the target year existing Classroom space. The Teaching Laboratory deficit was 24,972 ASF. Open Laboratories showed a deficit of 2,205 ASF. Research Laboratory space showed a deficit of 10,903 ASF. The deficit in Academic Office space was 14,304 ASF or 11% of existing Office space at the target year.

**Academic Support Space**

This space classification analysis included Administrative Offices, Library, Assembly and Exhibit, and Physical Plant Space. The Academic Support Space category showed a deficit of 18% of existing space at the target year. The Administrative Office category showed a deficit of 39,077 ASF or 49% when space was compared to target year existing space. The Library category showed a 88,472 ASF deficit of space before inclusion of the new library building. After inclusion of space under construction in the new Addlestone Library the space findings showed the Library to be approximately at balance. Physical Plant Space was at balance at the base year, but showed a deficit of space at the target year.

**Auxiliary Space**

This functional space classification showed a 95% deficit of space at the target year. The planned renovation and addition to the Stern Center will not provide the campus with sufficient space to adequately serve the students. Health Care Facilities show a deficit in space. While this deficit is only a total of 1,613 ASF, it is 120% of the existing space.

**Future Projections**

The College of Charleston is implementing the Fourth Century Initiative to enhance the quality of the institution as a nationally preeminent public liberal arts and sciences university. The Initiative includes a reduction in class sizes and a lowering of the student to faculty ratio. These goals
will be met by an anticipated decrease in undergraduate enrollment by 300 students, an increase of 50 faculty, and an increase of 50 staff.

The target year Space Needs findings incorporated the decrease in student enrollment and the increase in faculty and staff. At the time of this study, the units receiving 25 of the faculty positions had been determined. In discussion with the Provost, the assumption for this analysis is that the units receiving the additional 25 faculty positions would be proportionate to the first 25 at the School level. Within the School of Humanities and Social Sciences, the Dean was asked to provide projections for the additional faculty placements at the departmental level.

At the time of the study, the units receiving the first 18 additional staff had been determined. The consultant assumed that the additional 32 would be distributed to the units on campus in a manner that is proportionate to the existing staff.

The Addlestone Library was under construction at the time of this study. The planned space in the new Library was added to the existing space on campus for the analysis at the target year. The planned spaces in the School of Business and Economics Building, the planned spaces in the addition and renovation to the Simons Center for the Arts, and the new building planned for the School of Education at St. Philip and Wentworth Streets were also included in the facilities data base for analysis at the target year.

At the base year the facilities inventory included inactive or conversion space in the Bellouth Building, the Arcade Building, and 86 Wentworth Street. At the target year the inactive or conversion space included the spaces previously identified for conversion but added the spaces vacated by the library in the R.S. Small Library and the spaces in the Education Center vacated by the Center for Student Learning. Also added to inactive or conversion space at the target year were the spaces in 5 College, 7 College, 9 College, and the J.C. Long Building when vacated by the School of Education and the School of Business, and the spaces vacated in the Lightsey Center when the Conference Center is eliminated. The target year facility inventory included the reassignment of the space in 86 Wentworth Street to the School of Education. At the time of the study the campus had plans to demolish the Arcade Building. The space in this building was removed from the facility inventory for the target year analysis. The buildings at 14A St. Philip, 14B St. Philip, and 84 Wentworth Street were also removed from the facility inventory at the target year.

A complete copy of this report may be obtained from the Office of Facilities Planning.
Utilities

Storm Drainage
Campus wide there is a net decrease in impervious surface that should equate to an overall decrease in storm-water runoff. However, these improvements will likely be reviewed on a site-by-site basis by local agencies as development and construction progress. Any individual project that produces an increase in impervious area may be required to provide storm-water detention via ponds or underground detention.

The City of Charleston engineer said he knows of no flooding problems in the campus area other than localized problems due to maintenance issues.

Overall, any new development should not require wholesale public storm-water infrastructure improvements. As development progresses, each site will need to be evaluated individually to determine if minor improvements are necessary.

Water Distribution System
From a domestic supply standpoint, the existing public infrastructure should be adequate to supply the proposed campus facility improvements. Overall, the water pressure is low throughout downtown Charleston. As a result, existing system pressures will not be adequate to provide internal building fire protection. Each building will likely require internal booster pumps to achieve desired pressures, especially for multi-story buildings.

Each site will need to be evaluated individually with proper hydraulic modeling and fire flow information to determine if any infrastructure improvements will be required. The areas of main concern would be those that are supplied solely by a 6-inch water main.

Sanitary Sewer System
Overall, increase in wastewater flow for the campus improvements is low and should not have a significant adverse downstream effect on the sewer system. Most existing sewer mains are 8 inches in diameter and are not experiencing any significant overloads or surcharge according to Charleston’s Public Works department. Each development should be reviewed individually to determine more specific flow rates and patterns and to determine if minor improvements will be necessary.
Deferred Maintenance

Overview

One of the first steps of the planning process included a facility condition assessment provided by 3D/I of approximately 800,000 square feet of the College's selected buildings. The selection included 37 buildings of various uses. The findings were then extrapolated across the entire 1,932,337 square feet of the College's total buildings. The assessment provides professional and comprehensive technical information needed to make informed decisions regarding the planning and funding for the maintenance of existing facilities.

The assessment identified costs for both deferred maintenance and capital renewal. Deferred maintenance is defined as work that has been deferred on a planned or unplanned basis due to lack of funds in the annual budget cycle, excluding normal maintenance that has already been scheduled. Capital Renewal is the future renewal requirements for facility systems that reach the end of their predicted life cycles.

3D/I used a Level 1 Assessment approach. A Level 1 assessment collects data from a visual inspection of facilities and a review of drawings or other documentation provided by the facilities representatives. Every area of each building is investigated including attic spaces, roofs, mechanical rooms, and crawl spaces when accessible. 3D/I performed a Level 1 assessment of thirty-seven buildings and a campus infrastructure assessment. The buildings are grouped into the categories of Academic, Auxiliary and Housing. The Academic category includes buildings whose primary use is instruction. The Auxiliary category includes buildings whose primary use is for offices or a residence. The Housing category includes buildings whose primary use is student living facilities. A separate category is included for campus infrastructure.

The facilities assessed were:

- 10 Greenway
- 12 Glebe Street
- 14 Glebe Street
- 16 Glebe Street
- 2 Greenway
- 20 Glebe Street
- 22 Glebe Street
- 26 Glebe Street
- 4 Greenway
- 44 St. Phillip
- 5 College
- 6 Glebe Street
- 6 Greenway
- 67 George Street
- 7 College
- 72 George Street
- 74 George Street
- 9 College
- 9 Liberty

- Communication Museum
- Craig Cafeteria/Dorm
- Education Center
- Knox-Leece House
- Maybank Hall
- Physicians Audtorium
- Porters Lodge
- Randolf Hall
- Robert Scott Small Library
- Rutledge Rivers Dorm
- School of Arts
- Science Center Original
- Science Center Addition
- Sorrell House
- Sorrell Theatre
- Stern Center
- Tate Center
- Towell Library
- Buist Rivers Dorm
Objectives
The objectives of the assessment were to provide a report on the general status of each assessed building's current deferred maintenance conditions based on its components' expected useful lives and to provide recommended funding budgets for the College's capital renewal expenditures over the next ten years.

Approach
3D/I had extensive interviews with representatives from the College's mechanical, electrical, carpentry, roofing and interior finishes shops representatives to determine their experiences and knowledge of each building's systems conditions. 3D/I also reviewed the very helpful written information produced by the College representatives for each building. Team members then visited each building to see the systems conditions and record information. Using this approach, 3D/I determined for each system:

1) how far along a system was in its life cycle, 2) its priority for repairs, and 3) cost adjustments for partially damaged or partially renovated systems.

Facilities Condition Index
One of the findings of the assessment process is the determination of the Facility Condition Index, or "FCI." The FCI is an industry standard (APPA and NACUBO) ratio of the cost of assessed deficiencies plus accumulated component system deferred maintenance, divided by the current replacement value (CRV) of the facility. It describes the relative state of physical condition of a building (or its components, or a group of buildings) against a cost model of the original building as if it were at the beginning of its useful life today, fully "renewed" to today's standards. The APPA FCI % Condition Range is defined as follows:

- >0 to 5% Good Condition
- >5% to 10% Fair Condition
- >10% Poor Condition
## Summary of Findings

### Combined Condition of Buildings

The following table summarizes the results of the survey. It depicts the estimated current replacement value (CRV) and the associated Facility Condition Index (FCI) for each facility.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Cost/SF</th>
<th>GSF</th>
<th>Year</th>
<th>Repair Cost</th>
<th>Replacement Value</th>
<th>FCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Greenway</td>
<td>$111.74</td>
<td>2,741</td>
<td>1841</td>
<td>$81,052</td>
<td>$366,279</td>
<td>26.46%</td>
</tr>
<tr>
<td>12 Glebe St.</td>
<td>$162.18</td>
<td>4,234</td>
<td>1855</td>
<td>$444,642</td>
<td>$686,670</td>
<td>0.50%</td>
</tr>
<tr>
<td>14 Glebe St.</td>
<td>$146.31</td>
<td>3,197</td>
<td>1855</td>
<td>$60,301</td>
<td>$467,753</td>
<td>12.89%</td>
</tr>
<tr>
<td>16 Glebe St.</td>
<td>$146.01</td>
<td>2,003</td>
<td>1855</td>
<td>$154,499</td>
<td>$423,867</td>
<td>36.45%</td>
</tr>
<tr>
<td>2 Greenway</td>
<td>$142.60</td>
<td>3,218</td>
<td>1920</td>
<td>$85,005</td>
<td>$458,887</td>
<td>18.52%</td>
</tr>
<tr>
<td>20 Glebe St.</td>
<td>$145.13</td>
<td>4,584</td>
<td>1846</td>
<td>$75,389</td>
<td>$665,276</td>
<td>11.33%</td>
</tr>
<tr>
<td>22 Glebe St.</td>
<td>$149.61</td>
<td>3,483</td>
<td>1905</td>
<td>$91,852</td>
<td>$521,092</td>
<td>17.63%</td>
</tr>
<tr>
<td>26 Glebe St.</td>
<td>$145.14</td>
<td>4,210</td>
<td>1887</td>
<td>$150,212</td>
<td>$611,039</td>
<td>24.58%</td>
</tr>
<tr>
<td>6 Greenway</td>
<td>$137.91</td>
<td>3,218</td>
<td>1817</td>
<td>$115,785</td>
<td>$443,794</td>
<td>26.09%</td>
</tr>
<tr>
<td>44 St. Phillip</td>
<td>$149.32</td>
<td>1,728</td>
<td>1870</td>
<td>$13,614</td>
<td>$256,830</td>
<td>20.10%</td>
</tr>
<tr>
<td>5 College</td>
<td>$137.79</td>
<td>5,225</td>
<td>1826</td>
<td>$125,275</td>
<td>$719,953</td>
<td>17.40%</td>
</tr>
<tr>
<td>6 Glebe St.</td>
<td>$188.90</td>
<td>6,486</td>
<td>1770</td>
<td>$21,417</td>
<td>$1,225,205</td>
<td>1.75%</td>
</tr>
<tr>
<td>6 Greenway</td>
<td>$139.62</td>
<td>2,175</td>
<td>1817</td>
<td>$44,721</td>
<td>$303,674</td>
<td>14.73%</td>
</tr>
<tr>
<td>67 George St.</td>
<td>$125.26</td>
<td>4,210</td>
<td>1850</td>
<td>$177,035</td>
<td>$527,345</td>
<td>33.57%</td>
</tr>
<tr>
<td>7 College</td>
<td>$125.79</td>
<td>5,225</td>
<td>1826</td>
<td>$115,340</td>
<td>$657,243</td>
<td>17.55%</td>
</tr>
<tr>
<td>72 George St.</td>
<td>$119.11</td>
<td>3,736</td>
<td>1837</td>
<td>$128,673</td>
<td>$444,995</td>
<td>31.16%</td>
</tr>
<tr>
<td>8 George St.</td>
<td>$117.43</td>
<td>1,795</td>
<td>1870</td>
<td>$13,859</td>
<td>$245,658</td>
<td>37.02%</td>
</tr>
<tr>
<td>10 College</td>
<td>$138.75</td>
<td>9,105</td>
<td>1835</td>
<td>$337,972</td>
<td>$1,081,219</td>
<td>31.26%</td>
</tr>
<tr>
<td>10 Liberty</td>
<td>$135.36</td>
<td>43,340</td>
<td>1970</td>
<td>$2,138,710</td>
<td>$5,866,502</td>
<td>36.46%</td>
</tr>
<tr>
<td>Baint Rivers Dorm</td>
<td>$142.18</td>
<td>30,514</td>
<td>1967</td>
<td>$1,743,725</td>
<td>$4,338,481</td>
<td>40.19%</td>
</tr>
<tr>
<td>Com. Museum</td>
<td>$132.29</td>
<td>6,639</td>
<td>1805</td>
<td>$239,673</td>
<td>$878,273</td>
<td>27.29%</td>
</tr>
<tr>
<td>Craig Caf/Dorm</td>
<td>$139.77</td>
<td>53,081</td>
<td>1961</td>
<td>$1,207,468</td>
<td>$4,191,131</td>
<td>16.28%</td>
</tr>
<tr>
<td>Education Center</td>
<td>$134.96</td>
<td>59,081</td>
<td>1980</td>
<td>$1,009,487</td>
<td>$7,973,572</td>
<td>12.66%</td>
</tr>
<tr>
<td>Knox-Leis. House</td>
<td>$117.86</td>
<td>11,578</td>
<td>1846</td>
<td>$321,927</td>
<td>$1,364,583</td>
<td>25.39%</td>
</tr>
<tr>
<td>Maybank Hall</td>
<td>$132.80</td>
<td>46,686</td>
<td>1973</td>
<td>$1,497,741</td>
<td>$6,199,901</td>
<td>24.16%</td>
</tr>
<tr>
<td>Physicians Aud.</td>
<td>$211.99</td>
<td>9,479</td>
<td>1974</td>
<td>$1,654,953</td>
<td>$3,699,433</td>
<td>6.20%</td>
</tr>
<tr>
<td>Porters Lodge</td>
<td>$191.06</td>
<td>743</td>
<td>1850</td>
<td>$75,126</td>
<td>$141,958</td>
<td>52.92%</td>
</tr>
<tr>
<td>Randolph Hall</td>
<td>$169.46</td>
<td>44,138</td>
<td>1828</td>
<td>$2,626,146</td>
<td>$7,479,625</td>
<td>57.00%</td>
</tr>
<tr>
<td>R. S. Small Library</td>
<td>$130.69</td>
<td>73,661</td>
<td>1972</td>
<td>$2,699,288</td>
<td>$9,626,756</td>
<td>28.04%</td>
</tr>
<tr>
<td>Rut. Rivers Dorm</td>
<td>$146.57</td>
<td>27,835</td>
<td>1973</td>
<td>$1,641,910</td>
<td>$4,079,776</td>
<td>40.25%</td>
</tr>
<tr>
<td>School of Arts</td>
<td>$134.65</td>
<td>105,338</td>
<td>1979</td>
<td>$1,679,734</td>
<td>$4,183,762</td>
<td>11.84%</td>
</tr>
<tr>
<td>Science Center</td>
<td>$139.01</td>
<td>52,558</td>
<td>1974</td>
<td>$3,834,288</td>
<td>$7,306,088</td>
<td>52.48%</td>
</tr>
<tr>
<td>Science Addition</td>
<td>$139.01</td>
<td>52,558</td>
<td>1985</td>
<td>$1,553,310</td>
<td>$7,306,088</td>
<td>18.52%</td>
</tr>
<tr>
<td>Sonville House</td>
<td>$146.70</td>
<td>9,783</td>
<td>1899</td>
<td>$195,452</td>
<td>$4,435,166</td>
<td>13.62%</td>
</tr>
<tr>
<td>Sonville Theater</td>
<td>$170.12</td>
<td>38,326</td>
<td>1928</td>
<td>$77,386</td>
<td>$6,520,019</td>
<td>1.19%</td>
</tr>
<tr>
<td>Stern Center</td>
<td>$156.29</td>
<td>49,594</td>
<td>1975</td>
<td>$1,084,109</td>
<td>$7,736,980</td>
<td>14.03%</td>
</tr>
<tr>
<td>Tice Center</td>
<td>$143.19</td>
<td>18,980</td>
<td>1998</td>
<td>$0</td>
<td>$2,706,291</td>
<td>0.00%</td>
</tr>
<tr>
<td>Tlowell Library</td>
<td>$148.47</td>
<td>4,833</td>
<td>1856</td>
<td>$115,869</td>
<td>$717,556</td>
<td>16.15%</td>
</tr>
</tbody>
</table>

**Totals** $23,530,783 20.37%
The ranking of the various buildings and/or groups of buildings, as measured by PCI, are from worst to best. Under the APPA guidelines, the Facility Condition Index (FCI) for these buildings overall is “Poor.” It is generally held in the property management industry that when an FCI is 60-70% or greater, replacement of the asset should be considered as well as renewal or renovation. For the College facilities with FCI’s in or near this range, the master planning process should carefully weigh issues such as:

- Occupant densities (current versus planned) of the dormitories or apartments.
- The general condition of the existing foundations and superstructures.
- The need for additional space, i.e., new construction.
- The appropriateness of the location of current assets.

It is very important to note that the costs provided in this assessment to renovate the selected College facilities are the estimated costs to modernize the facility, rather than simply renew it back to original standards. For the College’s non-historic facilities, “modernize” means renovating existing facilities or building new facilities to current college best practices and standards. The general functions within the building as well as associated amenities are not significantly different. However, code and livability issues are included in the cost models. For example, today’s codes and most life safety standards would require that residence facilities of more than two stories have fire sprinkler systems so the costs for renewal include the installation of fire sprinklers. This methodology was chosen because the cost estimates generated by this assessment are more relevant to the planning process than the costs associated with replacing a building in kind. For the College’s historic facilities, “modernize” means renovating existing facilities to the present exterior appearance including materials acceptable to the municipal historic zoning requirements.

Conclusions

The overall FCI of the selected facilities at the College of Charleston is 20.37%, typical of what is found for facilities of similar age and function across the nation. While this is a “poor” FCI (as defined by the APPA) the facilities are generally well maintained. The relatively high FCI is primarily the result of unfunded capital renewal, commonly called deferred maintenance.

The majority of the deferred maintenance requirements are of the type that can be renewed without demolition of the facility (mechanical systems, electrical, finishes and exterior doors and windows). This does not say that all facilities should be renovated. Renovation remains an option as planners consider programmatic space needs.

While the deferred maintenance cost of the selected buildings is $23,530,783, the total cost when extrapolated across all the buildings on campus is $56,414,819. This is not the only cost to be considered when establishing the Master Plan. There is another $118,569,310 of requirements over the next 10 years as systems surpass their life expectations.

This assessment included only nominal site assessments. Only landscaping and parking in the immediate area of the facilities were included.

Caveats

The Level I assessment should not be used to identify specific scope of work for individual buildings. Rather, it is a programming and budgeting tool that offers appropriate data for the planning process. With prudent planning and
construction project programming, substantial cost savings may be realized from estimated cost figures provided herein, depending on the construction market activities at the time. Detailed engineering studies that are beyond the scope of this assessment also may be required to fully determine costs associated with individual component failures.

Comprehensive Facility Assessment

As a follow up to this master plan, a Level 2 assessment is recommended over the entire facility portfolio. The College should conduct this type of assessment every three to five years on each facility to keep an accurate database of facility conditions. The Level 2 assessment provides detailed cost estimates on an individual component deficiency level. It is useful for prioritizing work orders, providing job order contractors with packages of deficiencies to correct, and for establishing a baseline of known deficiencies for capital project planning.

A complete copy of this report may be obtained from the Office of Facilities Planning.
Concept Development
Concept Plan  Through the analysis of the campus and the creation of the planning principles, a Concept Plan was developed to help guide the direction of the Master Plan. The Concept Plan represents broad intentions and specific areas of opportunity or conflict. The general ideas represented by the Concept Plan include:
• Defining the relationship between the campus and the City and between development and the historic district of the campus.
• Identifying potential development opportunities.
• Recognizing the existing urban fabric and hierarchy of streets within the campus.
• Improving the safety of pedestrians crossing Calhoun Street and establishing a new College “front door”.
• Developing or strengthening east-west connections through the campus.
• Extending the system of open spaces throughout the campus and connecting areas of development.

Planning Principles
The College of Charleston's unique qualities and the historic nature of its context requires the Master Plan to respond to many important issues. In this effort, the Plan maintains the characteristics that make the College truly unique and strives to perpetuate them. To guide the planning process, the following planning principles were established:

Large University/Small College Feel
• Reinforce the benefits of a university with the intimacy of a small college.
• Organize the campus to foster interaction among academic, social, cultural, recreational, and service functions.
• Emphasize the total academic and co-curricular experience.

Profoundly Unique Sense of Place
• Respect the historic aspect of Charleston.
• Add to the rich architectural and landscape heritage of the City and the campus.
• Define the edges of the College while maintaining the connections to and from the City, primarily its neighborhoods.

Student-Centered Campus
• Increase living and learning opportunities.
• Create spaces and places for serious study and social interaction.
• Improve access, wayfinding, safety, and the pedestrian experience.

Facilities Reflective of Academic Excellence
• Update outdated facilities and provide new spaces to meet the mission of the College.
• Improve organization of campus uses which consolidate departments, programs, student residences, and services.
North Precinct  To test the Concept Plan and consider the campus in greater detail, the campus was divided into north and south precincts. The two precincts were considered separately at first, and then reconsidered at the scale of the entire campus. In both cases, the investigation began with personal tours by representatives of the College and the community. Many design options were studied and various programs were tested on each site. After a comprehensive review, schemes were chosen to be developed.
With the growth of the student population and availability of property, the College has expanded north of Calhoun Street. Much of the existing student housing, including the two most recent acquisitions, are along St. Philip Street. The BellSouth Building has been used for offices and classrooms. Most recently, a parking garage was built to serve the growing activity in the area. Along Coming Street, plans are being developed for a new Science Center. Completion of the Addlestone Library at the corner of Calhoun and Coming Streets will begin to tie this future development to the campus.

The BellSouth property between St. Philip and Coming Streets represents the best opportunity for large building sites. In the first precinct study, construction of student housing in this area, lining the streets and forming an open space at the center, was proposed. Additionally, it was proposed that classes be removed from the BellSouth Building and that it eventually be converted into a Student Union. In this way, the academic core would remain south of Calhoun Street, centered around the original heart of campus, and a new residential community would be centered north of Calhoun Street around the Student Union. The formation of open space within the residential buildings and in front of the Student Union facing Calhoun Street would begin to extend the open space system across Calhoun Street. An east-west connection at the mid-blocks also would strengthen the connections back to the existing campus buildings.

With the establishment of the Library and the new Science Center on the corners of Coming and Calhoun Streets, the existing housing and future Art expansion on the corners of St. Philip and Calhoun Streets, the proposed residential area between the two would complete the development and transform Calhoun Street into a vibrant part of the campus.
South Precinct Within the dense historic center of the College of Charleston, some opportunities exist for improvement and for additional construction. The second precinct study identified a number of available building sites, as well as a few buildings in need of renovation and possible replacement. The continuing need for parking at the center of campus also was addressed.
Following the original concept of maintaining the academic center around the historic core of campus, an academic/administration building south of the Simons Art Center was proposed. This building would help define the street edge, the area of the Cistern, and the connection through the middle of the block to King Street. In this scheme, the existing garden space is maintained. The replacement of Craig Hall was also proposed in the long term by a new academic building. A site was chosen for a new psychology building on Coming Street at the terminus of George Street. With the renovation of the Stern Center, this would complete the expansion adjacent to the Cistern and the development of the academic core.

Additional academic buildings are indicated on the plan, including the recently designed Business School, Simons Center expansion and renovation, and the new School of Education. A small building adjacent to the Jewish Studies Center for future academic expansion is shown as well.

As part of the initiative to house more students on campus, locations were identified for new student housing in addition to that proposed in the north precinct. A new residence hall will soon replace the College Lodge, with space for and expanded Wellness Center. Another new residence hall then will replace the existing Wellness Center. Adjacent to the new library open space, a small residence hall was proposed at the location for honors housing. Lastly, the replacement of the existing parking garage at the corner of George and St. Philip Streets was proposed with a mixed use building, and surrounded by new student housing and other uses such as a dining hall.

The student life buildings are represented on the plan by the new Student Union in the north precinct as the center for student activities, the renovated and expanded Stern Center as the recreation center, and the existing athletic facility on George Street, with a large expansion to the north. Most of the student academic support space will be located in the Lightsey Center.
Final Plan
Plan Summary

The Final Plan represents the result of the ideas formed and tested in the earlier phases.

One of the major goals of the Master Plan is to emphasize the benefits of a larger university while maintaining the intimacy of a small college. The historic space of the Cistern has long represented this idea. The further development of administration and academic buildings around the core strengthens the Cistern as the academic heart of campus.

The central core of campus also becomes a wonderful opportunity for interaction and for facilitating academic, social, cultural, and recreational activity. The inclusion of multiple programs, including the new parking garage, student housing, an enhanced dining facility, and the renovated Stern Center, all encourage such interaction.

An improved system of pathways and landscape treatments helps connect campus elements. The plan emphasizes College Way as a new axial spine, which extends from Glebe Street, through the heart of campus, and across Calhoun Street into the new student residential space. This pedestrian path links the academic spaces of campus to the residential areas, as well as the historic core to the area of new development. Secondary paths in an east-west direction connect to other points on campus. Enlarging the sidewalks along St. Philip and Coming Streets complete this system and help define the edges of campus, while improving connections to the City. This hierarchy of paths helps create a clear, safe, and active pedestrian experience.

With a strong heart at its center, the College of Charleston is able to expand farther from the core of campus. The new Addlestone Library and the future Science Center will establish strong centers of study at the intersection of Calhoun and Coming Streets. The future Student Center, open space, and residential housing on the BellSouth Property will establish a living center and connect to the existing residential halls along St. Philip Street. Pedestrian and open space connections to these integral components of campus are essential for maintaining a sense of cohesiveness. At the completion of development, the campus will be composed of one strong and historic core, with multiple secondary centers of activity.
With the construction of student housing in the core and in the periphery, the College of Charleston will begin to develop a variety of living environments. The first-year students will begin within the core campus, adjacent to the academic and social activities. The development of student housing north of Calhoun Street will bring more upperclassmen on campus and help foster a strong living and learning environment. As students progress, they will be offered more independent living opportunities at the edges of campus. All of the residential areas will be connected through the use of dispersed student centers and in daily academic and co-curricular activities.

Perhaps the most critical component of the Master Plan is the newly formed relationship to Calhoun Street. This long-perceived barrier is a challenge as well as an opportunity for the College of Charleston. The plan attempts to embrace the opportunity and to solve some of the major issues presented by this primary street. The location of the Addlestone Library, the new Science Center, the Arts expansion, the future student housing, student activity space and the edge of the existing campus all along Calhoun Street create an excellent mixed-use environment that has the potential to be a major center of activity for the
College. An open space will be created to connect the new Student Center to the Mall and to Randolph Hall. Simple measures of improving the crosswalks and installing a mid-block crossing will be employed to facilitate pedestrian movement. With the City's improvement plans and the potential uses by the College, Calhoun Street will become an important point of entry and serve as a 'front door' to the College.

The resulting Master Plan establishes a student-centered campus that offers multiple opportunities for study and social interaction within a context that respects the historic nature of Charleston and adds to the architectural heritage of the City. The campus will remain a unique place while meeting its vision of academic excellence.
Migration Plan: Within the Master Plan are a series of steps to reorganize the campus to make the best use of the existing facilities and those to be built in the future. A migration plan has been developed to utilize the space of the campus and to create appropriate adjacencies and programmatic relationships. All essential student services will be consolidated in the Lightsey Center. In the future, student activities and organizations will be organized in the new Student Union, while recreation space will be in the Stern Center. With the completion of such projects as the School of Business, the Simons Center for the Arts expansion and renovation, the School of Education, the Science Center, and the Psychology Building, many classrooms and faculty offices will be relocated over time. The migration of specific program elements will be done with the careful examination of space needs across campus.

Phasing: The Master Plan is a long-term vision for the College of Charleston, and it requires many years for completion. Phasing of projects will be dependent on the immediate needs of the College, as well as the availability of funding, strategic goals, and the availability of land. Deferred maintenance, parking, transit, and the beautification of open spaces and streetscapes will all be addressed throughout the following four phases:

Phase One
The first phase accomplishes the projects currently underway or in the planning process, such as the School of Business, the Simons Center expansion and renovation, the School of Education, the Athletics Center expansion, a new Residence Hall with the Wellness Center, and the renovation of the Lightsey Center, McConnell Hall, Craig Hall, and the Stern Center. Landscape projects having the greatest impact on the campus environment will also be completed.
## Project Cost Table

<table>
<thead>
<tr>
<th>Project</th>
<th>Total Project Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. School of Business</td>
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</tr>
<tr>
<td>2. Craig Hall Renovation</td>
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<tr>
<td>3. McConnell Hall Renovation</td>
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<td>4. Lightsey Center Renovation</td>
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<td>6. Stern Center Renovation</td>
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<td>7. School of Education</td>
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<td>8. New Residence Hall and Wellness Center</td>
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<td>9. Athletics Complex Expansion and Renovation</td>
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<td>10. Historic House Renovations / Conversions</td>
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</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td><strong>$92,685,000</strong></td>
</tr>
</tbody>
</table>
“The Campus Master Plan provides the appropriate physical environment for the enhanced academic climate at the College of Charleston.”
Phase Two

The second phase represents those projects in the relatively near future, such as the Science Center, Psychology Building, a new residence hall, and the renovation of Maybank Hall and the R. S. Small Library.

<table>
<thead>
<tr>
<th>Project</th>
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<tr>
<td>1. Maybank Hall Renovation</td>
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<td>6. New Psychology Building</td>
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Phase Three

Phase three includes the construction in the core campus of the mixed-use building with student housing, a parking garage, and other uses, and a new academic building.

<table>
<thead>
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<th>Project</th>
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Phase Four

The fourth phase proposes the development of the BellSouth Property north of Calhoun Street into student housing and the Student Union. At this point, Craig Hall will be replaced with a new academic building, and further housing could be built along the Library open space.

<table>
<thead>
<tr>
<th>Project</th>
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<tr>
<td>4. New Housing and Academic Space at Library</td>
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Parking and Transportation

Streets and the Pedestrian Realm

An overriding goal of the Master Plan is to make the Campus a more pedestrian-friendly environment. Within the core of the campus, bounded by Calhoun and Wenworth Streets north and south, and St. Philip and Coming Streets east and west, there exists a system of pedestrian connections and pathways marked by a consistent type of material and landscaping. The vehicular streets within the core of campus, Glebe and George Streets, are low-speed facilities that do not carry the volume of vehicular traffic of the other campus streets. These secondary streets are not significant barriers to pedestrian traffic, even though some improvements can be made and are recommended within this element of the Master Plan.

Unfortunately, the entire campus is not contained within this core. Pedestrian paths extend across busy roadways causing vehicle conflicts. The Campus has already extended classroom and residential space north of Calhoun Street, requiring a significant portion of the College's population to cross this busy arterial at some point during the day. The opening of the St. Philip Street Garage and the planned construction of the Science Center on the northwest corner of Calhoun and Coming Streets will only increase the number of pedestrians crossing the roadway on a regular basis.

In addition to the barrier of Calhoun Street on the north, the one-way pair of St. Philip and Coming Streets form barriers to east-west pedestrian travel. Students wishing to cross either of these streets often encounter fast-moving vehicular traffic. There are no measures currently in place to slow the traffic or to indicate to the driver the presence of high volumes of pedestrian traffic.
Another issue along these two streets is the relative narrowness of the sidewalks adjacent to the core campus. On St. Philip Street, the sidewalk measures only seven feet wide. During class change periods, students “spill” into the street and against oncoming traffic. Although this situation does not currently occur on Coming Street, the pending opening of the Library and the eventual development of the new Science Center on K-Lot will increase pedestrian activity on those sidewalks, potentially creating similar conflicts.

Wentworth Street forms the southern boundary of the core campus and functions as a one-way couplet with Beaufain Street to the south. This street also shows opportunities to tame vehicular speeds, although its narrowness and presence of on-street parking make it less hazardous than either St. Philip or Coming Streets.

The streets surrounding the campus have no characteristics to distinguish them as campus- and pedestrian-oriented. Motorists are given no indication of the pedestrian nature of the campus, or of the heavy sidewalk and street crossing pedestrian volumes.
The streets in and around the College are discussed in detail as follows, along with the analysis of the issue on each and potential solutions:

Calhoun Street
Calhoun Street is a four-lane arterial serving a significant amount (+/- 21,000 vehicles per day) of east-west traffic across and on/off of the Peninsula from the James Island Connector and the communities of James Island and West Ashley. This crossing is the southernmost bridge onto the Peninsula and the one that is closest to the historic downtown core and waterfront. As a bridge to the mainland, the facility also performs an important evacuation role in the event of a hurricane.

Calhoun Street forms what was once the northern boundary of the College of Charleston. However, with expansion continuing north of Calhoun Street, the roadway has become more of a barrier for pedestrian traffic. New residential and classroom uses north of Calhoun Street as well as the opening of the St. Philip Street Garage will only increase the demand for pedestrian crossings on this roadway.

Calhoun Street consists of approximately 47 feet of pavement designated as four travel lanes and one parking lane within the corridor adjacent to the College. Pedestrian crosswalks exist at the signalized intersections with Coming Street and St. Philip Street, but there is nothing that differentiates the campus section of the corridor from the other segments of Calhoun Street. Specifically, no elements of design exist that alert passing motorists to the significant amount of pedestrian traffic they are likely to encounter while traversing this area. Consequently, motorists behave no differently on the heavily-pedestrian campus segment of Calhoun Street than on the segments east and west of the College. Drivers expectations of a pedestrian-oriented area such as the College are not informed, and consequently, the roadway has become a hostile barrier to pedestrians.

With the north side of Calhoun Street beginning to see expansion of the College, it is imperative that Calhoun Street be "tamed" between St. Philip and Coming Streets to balance the needs of pedestrians and motorists. Drivers should be given visual cues that this segment of Calhoun Street is different. One method of accomplishing this goal is to elevate the presence of the pedestrians by modifying the intersections at St. Philip and Coming Streets. The intersections could be modified with a pavement treatment that clearly indicates to the driver that the area is a high pedestrian activity corridor. Additionally, the provision of such a treatment clearly delineates the crossing point for pedestrians. Given that the intersections are less than 600 feet apart, the area is relatively well-contained for
pedestrians. If development were to continue north of Calhoun Street the College should consider installing a midblock signalized pedestrian crossing. The signal at this crossing can be tied to the adjacent signals at Coming and St. Philip Streets to operate in their "shadow" so as not to impede vehicular travel and progression through the signals. This signal can be "shadowed" within the green bands of the adjacent intersection signals. The initial analysis indicates that this signal could be technically feasible.

Initial discussions with the City of Charleston Engineering Department have indicated a willingness to consider approval and recommendation to the South Carolina Department of Transportation (SCDOT) for such a crossing, provided that technical analysis of traffic patterns and signalization demonstrate its feasibility. This analysis would involve conducting turning movement counts at the intersections along Calhoun Street between Coming and King Streets, then measuring vehicular delay through a process that simulates the movement of vehicles and pedestrians through the area over the course of different time periods during the day. Synchro and CORSIM are two traffic simulation packages able to model the system and evaluate the viability of the midblock signal.

The proposed intersection improvements at St. Philip and Coming Streets should be accompanied by roadside aesthetic treatments such as landscaping and architectural enhancements. These features will help to send a clear message that the motorist is traversing a college campus and not simply traveling on a major traffic artery. A consistent corridor vocabulary will significantly contribute to the motorist's awareness of the increased pedestrian traffic in this area of the City, and that it should be traveled at a slower speed.

St. Philip and Coming Streets

These north-south streets form the east and west boundaries of the traditional core campus. Each street consists of two lanes of one-way traffic: St. Philip Street in the southbound direction, and Coming Street northbound. Classified as collector streets, each carries between 4,000 and 7,000 daily vehicles, totaling approximately 11,000 for the pair. This traffic volume is indicative of a demand associated with two travel lanes of vehicular traffic, one in each direction.

The roadway consists of approximately 29.5 feet of travelway on Coming Street and 28 feet on St. Philip Street, equating to lanes of at least 14 feet wide. Sidewalks are provided adjacent on both sides of each street. However, the western sidewalk on St. Philip is only 7 feet wide. This narrowness often results in pedestrians "spilling" out into the street at peak class change periods, a situation which is bound to manifest itself on the 9 1/2 foot wide sidewalk along Coming Street when initiatives such as the Library and Science Center come on line and begin drawing pedestrians.

The Peninsula Traffic and Parking Study commissioned by the City of Charleston in 2000 recognized that the one-way pair of St. Philip and Coming Streets were candidates for reversion to two-way traffic. Conversion of one-way streets to two-way traffic has been a recurring trend in urban areas. Given the low existing traffic volumes on this pair, it is expected that vehicular speeds would exceed posted limits. Observations on various visits to campus confirm that assumption. With light traffic volumes on a multi-lane one-way street, overtaking is possible and often practiced by vehicles passing one another. This behavior is extremely harmful in an environment such as the College and peninsula in general, where pedestrians are often present. By returning the roadways to two-way travel, the
practice of overtaking will be eliminated, and slower speeds and better motorist behavior will result, with no impact on accessibility within the area. With the slower vehicular speeds, midblock pedestrian crossings that are textured and raised could be installed to further heighten motorist awareness and pedestrian safety within these corridors.

There is an opportunity to reclaim excess street pavement width and widen the sidewalks on one or both sides of each street. The lanes on both streets are much wider than would be needed as travel lanes, and they could be reduced to 10 feet in width (20-foot overall travelway width). Additionally, some of the pavement width could be utilized as an on-street parking lane.

Several options were explored for returning the streets to two-way travel and narrowing travelway/widening sidewalks. Due to the width of the travelway on St. Philip Street (28 feet), the choice was either to add on-street parking and leave the sidewalk width as is or to widen the sidewalks, which would negate the possibility of adding on-street parking. Through discussions with the College, City, and other stakeholders, as well as professional observation of the pedestrian condition along St. Philip Street, it was decided that the widening of the sidewalk took precedence over adding on-street parking on St. Philip Street. On Coming Street, it was possible to add on-street parking and widen the eastern sidewalk slightly due to an extra 1.5-feet of width in the travelway. From an on-street parking standpoint, the situation would remain as it is today, with parking on Coming Street but not on St. Philip Street, while the narrow sidewalks on both streets could be widened. Widening of the sidewalk would also allow for additional plantings and canopy over the streets, continuing the design vocabulary of the campus corridor along these roadways.
Wentworth Street

Currently a two-lane one-way westbound street with on-street parking present on both sides within 35 feet of pavement, Wentworth Street forms the southern boundary of the core campus. Its one-way counterpart, Beaufain Street, is two blocks farther south and off campus. The Peninsula Traffic and Parking Study of 2000 recognized Wentworth and Beaufain Streets as candidates for conversion to two-way travel. This conversion is supported by the Master Plan for many of the same reasons as it is supported for Coming and St. Philip Streets. The conversion will reduce vehicular traffic on the corridor by preventing overtaking, thereby increasing pedestrian safety along the roadway.

One major difference in Wentworth Street is that the travelway is already geometrically constrained, disallowing the ability to widen sidewalks without the expense of taking existing parking within the corridor. Unlike the north-south pair of Coming and St. Philip Streets, Wentworth Street does not see the heavy pedestrian volumes along and crossing the corridor during class change, and, therefore, the widening of sidewalks is not as critical an issue. The conversion can be accomplished by simply reversing the travel direction on the southernmost travel and parking lanes.

Glebe Street and George Street

These streets bisect the College from north to south and from east to west. Both currently have on-street parking, and both are relatively narrow, with Glebe Street fronted by historic residences owned by the College and George Street characterized by significant tree canopy within the bounds of the campus core. Unlike Glebe Street, George Street does serve a regional transportation function on the Peninsula, particularly east of St. Philip Street, where it provides access to the waterfront, the Arena, the Sotile Theatre, and the King Street retail corridor.

Closure of both streets was proposed in some of the focus group meetings. However, both streets function as an integral part of the College and Peninsula transportation network. For this reason, it would be advisable to keep the streets open to vehicular traffic but to make modifications to the pavement that would clearly define the roadway as a primarily pedestrian realm, where vehicles are secondary. Temporary closures, such as those that occur currently on George Street for College events and Spoleto, should continue as they further define these streets as pedestrian-primary facilities. Raising and
texturing the intersection of George and Glebe Streets, as well as additional texturing of the roadways within the bounds of the campus core, would accomplish this definition of realms. The width of George Street would also allow for the addition of on-street parallel parking along its southern edge, further taming the character of the roadway and differentiating it from the remainder of the corridor on the Peninsula.

Summary and Recommendations

In summary, the following initiatives are proposed for the transportation and circulation system within the vicinity of the College:

- Tame Calhoun Street between St. Philip and Coming Streets by adding textured pavement and crosswalks at the intersections that define the beginning of the College of Charleston corridor.
- Continue to pursue installation of a midblock signalized pedestrian crossing on Calhoun Street between Coming and St. Philip Streets.
- Convert St. Philip and Coming Streets to two-way travel, and widen the sidewalks.
- Convert Wentworth and Beaufain Streets to two-way travel, and retain on-street parking.
- Define Glebe and George Streets within the bounds of the core campus as pedestrian-primary through the use of textures pavement, raised intersections, and on-street parking.
- Install textures and raised midblock pedestrian crossings along Coming and St. Philip Streets to continue the pedestrian corridors set up within the core campus.
- Texture the intersections at the bounds of campus as well as those within campus to clearly communicate pedestrian awareness to traveling motorists.

Parking and Transit System

The College’s parking system mirrors the transportation system in its complexity of products offered, utilization, and challenges. The location of the campus on the Peninsula in the heart of Charleston’s historic district prevents many typical parking solutions, such as the construction of large multi-story garages or perimeter parking lots. There is not much space to place a parking structure that is not already valued as a building site. For this reason, a slate of options was considered to capitalize on the existing and planned transit system, as well as housing more students on campus. Many potential partnerships were identified and contacted in the process, including CARTA, the City of Charleston, and private developers. Each of these stakeholders would gain distinct advantages by partnering with the College.
Existing Conditions and Issues

The College currently has 2,495 parking spaces available to 12,725 students, faculty members, and staff. Of that total, only 1,465 spaces are within the core of the campus. The ratio of parking spaces to population is on the low end of comparable urban campuses, but the stability of the population has kept the perceived shortfall of parking from becoming a crisis. The Parking Services Department still does not sell all of its permits.

Parking products available through Parking Services are:

- Core Premium Surface Parking
- Core Surface Parking
- Core Garage Parking
- Mid-Surface Parking (leased lots)
- Perimeter Surface Lots (leased lots)
- Perimeter Garage Parking with Shuttle (Aquarium Garage spaces leased from the City with a shuttle run by CARTA started Fall 2003)

Faculty members and staff are assigned spaces based on seniority and type of product requested, and then student applications are considered. Incoming residence hall freshmen are not allowed to use College parking until they accumulate 30 semester hours. Cost of permits by semester is broken down as follows:

- Core Premium Surface Parking: Faculty (tiered pricing) Students $450
- Core Surface Parking: Faculty (tiered pricing) Students $350
- Core Garage Parking: Faculty (tiered pricing) Students $400
- Mid-Surface Parking: Faculty (tiered pricing) Students $250
- Perimeter Surface Lots: Faculty (tiered pricing) Students $100
- Perimeter Garage Parking with Shuttle: Faculty (tiered pricing) Students $150

As shown by the discrepancy between the premium on-campus product (core garage) and the remote parking with shuttle, there is a financial incentive to the remote parking facilities. The core garage parking is expected to increase next year to $450/semester, which will make remote parking even more attractive.

With the redevelopment of important sites within the core campus and the corresponding loss of parking lots, coupled with the uncertainty of continuing leases on parking spaces in the vicinity of the College, a parking crisis may be on the near horizon. The College of Charleston Parking Services anticipates a shortfall of parking spaces within the next three years, even with the construction of the new St. Philip Street Garage.

While this may not seem like a significant shortfall in the number of available spaces, especially given the fact that the College currently does not "sell out" of parking permits, there are some components of the parking
space demands. New structured parking within the core would be limited in efficiency due to height restrictions and the inability to construct below ground level. The College addressed a portion of the shortfall by placing a parking garage north of Calhoun Street on St. Philip Street. However, this facility only partially replaces lost supply. Calhoun Street in its present condition forms a barrier to pedestrian crossing, and there is a perception/reality of personal safety and security concerns in the areas north of Calhoun Street after dark. Continued development of the area north of Calhoun Street by the College and others is beginning to change the safety perception, and the recommendations to tame this section of Calhoun Street will ease the crossing of pedestrian traffic.

Potential Opportunities and Analysis
Opportunities to increase and replace parking were discussed at length with stakeholders and the College to determine viability. The options outlined below are the ones that were focused upon by the stakeholders, College, and the team.

Specific opportunities that should be explored further with regard to parking include the following:

- Off-peninsula parking opportunities were explored to identify locations that could intercept a significant amount of College-bound vehicles prior to them crossing onto the peninsula. The concentration of students and faculty/staff that reside in West Ashley and James Island suggests a focus on sites accessible to the James Island Connector and to US 17 in West Ashley.

- The current shuttle service from the Aquarium Garage is a good jumping-off point for expanded remote parking operations. As CARTA begins to take over operations of the current shuttle system, the system will be enhanced to provide 8-minute...
headways in the peak hours and 15-minute headways off-peak, as well as operations for extended hours and year-round operations. The existing use of school buses will be replaced by the trolley buses currently used at DASH shuttles on the Peninsula and not a typical CARTA bus. An added benefit of this partnering arrangement is the provision of systemwide CARTA passes for all College students, faculty, and staff to utilize the entire CARTA system.

A significant opportunity to address the parking shortfall rests with the recently instituted remote parking and shuttle pilot program between the College and the Aquarium Garage. Approximately 25% of all students live on-campus and already park remotely in the Aquarium Garage. Although this policy has been changed to allow on-campus students with more than 30 hours to obtain on-campus parking, this population was relatively low and is not expected to increase the on-campus demand significantly. An evaluation of permit requests for Fall 2003 reflects this assumption, as only 250 residence hall students applied for parking for which they were not previously eligible.
The recent and overwhelming success of this pilot program reflects a willingness of the College population to utilize a good system of remote lots and shuttles. By expanding this idea to a more regional scale, it will be possible to identify locations off-peninsula at which students, faculty, and staff could park remotely and take a shuttle bus to the College. Examination of where off-campus students and faculty/staff live reveals a significant concentration of both students and faculty/staff reside in West Ashley and James Island. The James Island Connector forms a convenient link for a shuttle bus to run from a parking facility on James Island to the front door of the College along Calhoun Street.

CARTA is currently refining a revision to its services that would institute such an express bus system that could serve as a remote parking and shuttle system for the College. Given the high concentration of College population that resides in the West Ashley and James Island areas, it would be expected that utilizing CARTA's West and South Express Routes and the Park-and-Ride would provide an extremely attractive financial alternative to paying for on or near-campus parking. The proposal is to operate between 6:00 A.M. and 10:00 P.M. on 15 to 30 minute headways increasing to 30 to 60 minutes in off-peak times. The College is encouraged to continue its relationship with CARTA through the Aquarium Garage shuttle program and to provide input into the process of defining the routes and Park-and-Ride locations for the new Express service. A windshield survey of the proposed Park-and-Ride facilities indicate that there could be as many as 500 to 700 spaces available along these routes initially. Some properties near the proposed Park-and-Ride lots could potentially offer even more parking supply as the success of the system dictates. Inclusion of these spaces could increase the overall expected parking supply of the College from approximately 2,400 spaces to between 2,900 and 3,100 by 2005. College utilization of the system could be enhanced further with significant outreach and marketing to the College's population to increase awareness of the services.
Demand management techniques also will encourage greater utilization of the remote parking facilities. Several ways that demand management could be implemented include:

- Expand the cost differential between various parking products to provide more economic incentive to park remotely.
- Continue the policy of not allowing freshmen to bring cars to campus, and reconsider the requirement that all on-campus students must park remotely.
- Consider other forms of incentives for hierarchy of assignment of faculty and staff parking, such as preferential parking for faculty that teach at less-desirable times or preferential assignment for carpools (already in place for the Gloria Lot).

Transit Shuttle Cost Estimates

Order of magnitude capital start-up and annual operating costs were estimated for each of the proposed four shuttle routes using national cost data. As the development of CARTA’s system continues, these cost estimates will probably be found to be somewhat conservative.

The assumptions used in developing the estimates are as follows:

1. Route Information from Calhoun Street and St. Philip Street at the College of Charleston.
   - Route 1 – James Island Connector to Lowe’s parking lot
   - Route 2 – Downtown connector to proposed Superstop north of I-26
   - Route 3 – West Ashley to Citadel Mall
   - Route 4 – Mount Pleasant to the McGrath/Derby facility
2. Capital costs include purchase of new low-floor electric vehicles similar to the ones used in Chattanooga with all necessary maintenance equipment.
3. Average speed assumed to be 20 mph.
4. Low and high sides of range calculated using 10 minute and 5 minute headways.
5. Assumed operating times of 7 am to 10 pm, Monday through Friday, 48 weeks a year.
Summary and Recommendations

In summary, the following initiatives are proposed for the parking system within the vicinity of the College:

- Continue the relationship with CARTA and the City of Charleston with respect to the Aquarium Garage facility, continuing to lease the maximum allowable number of spaces (currently 600 spaces).
- Work with CARTA in the development and refinement of the Express Route concept to insure the viability of this system as remote parking for the College.
- Work with CARTA and other property owners in the region to identify additional intercept lots in areas where a large proportion of faculty/staff and/or students reside (such as James Island, West Ashley, and Mount Pleasant).
- Consider incentives (financial and otherwise) that will assist in demand management of the parking supply at the College.

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</table>
“The College of Charleston prides itself on being a large university with a small college feel. Our facilities, green spaces, and our unique sense of place all reflect this commitment to our students and the liveability of the campus.”
Understanding the City of Charleston: A Unique Sense of Place

Many attributes can be identified that make the City of Charleston unique among cities. Clearly, the large collection of existing historic buildings is one important factor. However, it is the presence of the architectural principals that these buildings follow that is truly unique.

The purpose of the Design Guidelines is to facilitate growth of the College of Charleston in a manner consistent with its history and in keeping with the goals of the Master Plan. The particular guidelines for the College of Charleston must be considered within the larger context of the City of Charleston. The guidelines examine issues such as site development, height/scale/ mass, building typology, use of materials, and landscape treatments. These topics are explored at the scale of the City, the scale of the College campus, and at the scale of the street and individual buildings. The goal is to develop a cohesive and broad image of the College within its historic context that will last for many years to come.

The City and the Campus

Many of the physical characteristics that define a city also are found in a college campus, including a system of open spaces and a hierarchy of building types. No place is this more true than in the City of Charleston, where the College developed simultaneously with the City. They share a rich and long history.
Historical Development

The movement to found the College began with and was funded by a collection of local citizens known as the Library Society. Land was already set aside for a free school and was quickly appropriated for the College near the northern edge of the City. In the College Act of 1785, the state legislature acknowledged that "the proper education of youth is essential to the happiness and prosperity of every community", and established the College of Charleston in or near the City of Charleston. With the charter from the State, and the intellectual and financial support of the people of Charleston, the College of Charleston became a reality and began its long relationship with the people of the City.

In 1723, the Reverend Mr. Morris selected the land on which the College sits today as the site for a schoolhouse. Well outside the boundary of the City (Beaufain Street), the activities of the students were a safe distance from the life of the City. Soldiers occupied the first two buildings during the Revolutionary War. The eastern building sat in the approximate location of Towell Library, and the removal of the western building established the open space known today as the Cistern. During this period, classes were conducted by the Reverend Robert Smith in his home on Glebe Street, known today as the President's House. Reverend Smith was the first principal of the College and helped finance the establishment of the first College building.

From the moment of its founding and the construction of its first building, the development of the College of Charleston followed the development of the City. The history of Charleston and of the College are reflected in the rich collection of buildings that comprise the campus. Although the College occupies a relatively large portion of land directly west of King Street, the physical components fit seamlessly into the fabric of the City. This is a result of the slow growth of the College over the first 150 years, and the gradual growth of the City around it. As Charleston grew, residential homes were built adjacent to College buildings, and as the needs of the College developed, many of these residential homes were acquired for academic use.

In the 1970s the College became a part of the South Carolina system of higher education, and the campus planned an expansion to accommodate the enrollment goal of 5,000 students. It was the first major expansion in the
history of the College, and involved the construction of many major academic and residential buildings. It also moved a number of existing historic houses and closed two streets. Because of the growth necessary to accommodate 5,000 students, the new buildings were large and introduced a new scale into the existing fabric of the campus. Some of the interventions were more successful than others, such as the Science Center and Physicians Auditorium, designed to form an edge on the street on one side, and a smaller scale massing to relate to existing houses on the other.

In general the many projects created a cohesive language across the campus by using brick as a consistent material. The paths and walls used the same brick, clearly defining the areas of campus. The most successful part of the expansion was the careful consideration of the interstitial secondary spaces created in the gardens and pathway connections across campus. These spaces help to weave the collection of historic homes among the newer academic buildings, creating the unique sense of place that defines the College of Charleston.
Urban Organization

Charleston is organized around a well-defined system of north-south, east-west roads and within a hierarchy of primary, secondary, and tertiary streets. Broad and Meeting Streets were the original pair whose importance is still evident in their intersection and the location of important civic buildings. These include the federal and county court houses, City Hall, and St. Michael's Church. As the City grew, other streets gained value, such as Market Street and King Street. Many of the important functions and the majority of the retail stores are along these streets.

The College of Charleston is adjacent to King Street and Meeting Street to the west and Calhoun Street to the north. The College has grown toward these edges over the years.

Many secondary streets connect with the primary streets to form the residential areas. This organization extends north towards the College of Charleston. The College sits within the smaller residential blocks of Harleston Village. The original campus was a single urban block, although many secondary streets now pass through the campus, allowing the College to be part of the urban fabric.
The tertiary system of circulation in the peninsula is a collection of mid-block alleys and paths. These passageways are part of a long tradition of east-west pedestrian circulation. Often multiple blocks are interconnected through a single path, crossing many streets. The most well-known example is the Gate Walk, which connects three cemeteries across three city blocks. Similar connections are within blocks of the College of Charleston. Passageways use the semi-public garden spaces between many of the traditional Charleston homes and often lead to larger formal gardens.

It is important to understand the qualities of each of these circulation systems and the differences in hierarchy, scale, and public use among them. For example, the tertiary system of walks often is associated with the residential scale of houses and gardens and a greater sense of privacy. Conversely, the primary road intersections are saved for the location of important civic buildings. The intersection of Broad and Meeting streets contains the most prominent buildings in the City. The hierarchy in Charleston's skyline often complements the hierarchy represented by the streets in plan. Church steeples mark moments of importance and make visual connections in the City.
Building Type  As with all cities, Charleston is a collection of multiple building types, with a hierarchy of streets organizing the City and corresponding to civic, commercial, and residential functions. Within these generic types, Charleston has developed some unique solutions.

Civic buildings are given importance by their location and their relationship to the urban fabric. They are generally on the corners of primary streets or at the terminus and on the major axis of the street. The Market Hall and the Old Exchange Building are at the end of Market Street and Broad Street, while St. Philip's Church projects into the center of Church Street. At the Four Corners of Law, each building occupies a corner and is surrounded by open space. In both conditions, the buildings are allowed to stand alone as objects within the city.

The architectural language of civic buildings also sets them apart from other local buildings. Classical elements from Roman and Greek architecture represent their importance. Generally, this is known in Charleston as the Federal Style and is shown best in the work of Gabriel Manigault (City Hall), and Robert Mills (Fireproof Building). The most identifiable feature of these buildings is the two-story colonnaded porches supporting a triangular pediment. In addition to the larger scale and monumental façade produced by these elements, they allow the entry porches, the columns themselves, or more often the stairs to project into the sidewalks and into the public space of the streets. In many ways, this relationship to the City streets extends the public space into the buildings.

Urban campuses produce a unique twist on the civic building type with the central academic structure. Randolph Hall is the traditional symbol of the academic institution. Built in 1828 by William Strickland, it is a Federal Style building complete with grand portico. With the Towell Library and the Porter's Lodge, the buildings define the open space of the campus known traditionally as the Cistern.
"Charleston is a beautiful, historic, walkable city, and our campus plan maintains connectedness and identity within the larger urban community."
The commercial properties in Charleston follow a simple model. On major streets such as Broad, Market, King and Meeting, the stores and offices occupy the first floors, with other uses often in the second and third stories. This mix-use of program provides vitality to the streets and ensures active use during the majority of the day. The continuous storefronts create a consistent rhythm along the streets and correspond to the scale of the pedestrian. Calhoun Street is beginning to be developed in this manner and may serve as a valuable streetscape for the College.

The most predominant building type in Charleston, the single house, is the preferred residential model. There are many aspects of the single house that make them entirely unique. Most important is the general use of proportion and the consistent characteristics of height, scale, and mass. Most are composed of these basic elements, providing a consistent character. As the name suggests, the houses are a single room wide and usually two deep, and two-to-three stories tall. They have the narrow end directly against the sidewalk in relatively narrow lots. Typically, they have a two-story porch known as a piazza attached to the south- or west-facing side, depending on the orientation of the street. The piazza opens onto a narrow garden that may extend toward the rear of the property. Entry to the single house is through a door on the piazza. From there, one enters the house through a second door.

The entry sequence of a typical single house has multiple levels of privacy from the street to the inside. From the public domain of the street, the garden represents the first level of privacy, one that is visually open to the public. The entry door on the piazza represents the next level of entry into the semi-private, yet still exterior, area of the house. This threshold can be controlled by use of the door. The last threshold is the door at the center of the house.
off the piazza. This hierarchical relationship is similar to the primary, secondary and tertiary system of streets described above.

The double house is a variation of the Charleston single house. This is a larger home on the primary streets in the City. The entry is at the center of the house, orientated toward the street. In the double house, the distinction between private and public is defined more clearly. The central entry and larger façade represent the threshold between the public area of the street, and the private domain of the interior of the house. The gardens are toward the rear.

With the combination of civic, commercial, and residential buildings, Charleston has many structures that define the street edge and a few prominent object buildings that stand alone. The many types in the City and the hierarchy of streets that they define form the urban fabric of the City of Charleston and the campus of the College.
Systems of Gardens and Open Spaces  The spaces between the buildings and left open within the blocks create the complicated system of public and private gardens in the City. There are multiple levels of open spaces. The streetscapes represent one type of open space composed of the sidewalk, trees and building facades. Parks that have been reserved for the use of the public are the second type. Third is the collection of private gardens that accompany the residential homes.

There are limited number of public parks in the City of Charleston due to the constraints of the Peninsula. The High Battery was developed from the original cannon defensive position at the tip of the Peninsula, at the southern end of Meeting Street. At the northern end of Meeting Street can be found Marion Square, a parade ground preserved as open space. In-between, at the civic center of the City and the intersection of Broad and Meeting Streets, open spaces are formed behind the civic buildings. The buildings occupy the corners and keep the remaining space as public parkland. The corresponding space behind St. Michaels Church is a cemetery. Recently a park along the waterfront has been developed and is a welcome addition to the park system.

Because there is a finite amount of public parkland available in the City, the residential model developed with small private gardens. Charleston became a city of many individual, intimate spaces and gardens. Because of the typical organization of the single houses, the private gardens are open to the streets and become part of the public space.

A similar organization of open spaces and gardens can be found in and amongst the buildings of the College of Charleston. The space of the Cistern was left vacant as an open space for the College, similar to Harvard Yard or many other classic academic quadrangles. One important difference is the open nature of the space, and the exposure to the street on two sides. This is both a college quadrangle and a public space. In 1970, as the College expanded beyond the original central core, the adjacent streets were closed and turned into generous walkways lined with gardens.

Throughout the development of the College, the more intimate gardens of the historic homes have been incorporated into the open space systems. Many times these gardens are used as connections within the blocks for pedestrian circulation.

Site Planning  The urban fabric of Charleston is defined by the edges and facades of the buildings along the streets. Most buildings tightly abut the edge of the property line and the sidewalk. This consistency of this alignment helps produce the public space of the street. Set backs occur at appropriate and important moments, typically to indicate a public building and often to accommodate the scale of a larger facade. Civic buildings frequently maintain edge and indicate entry with a ceremonial portico or stair that meets the street.

Due to the climate of South Carolina and the City of Charleston, certain features were incorporated into the buildings to increase the comfort of the inhabitants. The piazzas of single houses, for example, were usually built on the south or western facing sides. These porches provide shade during the summers and give the inhabitants access to cooling breezes. Privacy was also a contributing factor to the orientation of the houses. The short end of the house was placed against the public street, limiting exposure and preserving the majority of the lot for more private use.
The edges of the streets not defined by the buildings were often completed by walls and fences, allowing for consistent vertical surfaces, varied levels of transparency, and controlled moments of entry. Similar walls and fences defined the rear and side edges of the properties. At particularly important thresholds, gates or archways mark transitions from one area to the next, or entry into a specific precinct. These are common elements on the campus of the College of Charleston, where it is not always obvious where the City fabric ends and the College campus begins.

Height, Scale, and Mass
The height, scale and mass of Charleston's buildings are determined by many factors and are relative to their use and location. The City's zoning clearly indicates appropriate heights in each area. Most residential areas and the core of the College campus are restricted to three stories. The heights of the commercial zones along the major streets are defined by the width of the roads but are typically allowed to be taller than the residential areas. Because most of Charleston is a historically preserved area, great sensitivity must be paid to the existing urban fabric and the consistency of the street maintained.

The scale of the buildings is determined by use and by the general proportions and specific architectural features of the façade. Most residential buildings are suited to a smaller scale, one that responds to the intimate nature of the residential streets. Commercial buildings along King and Broad streets are higher but maintain a smaller pedestrian scale at street level. The civic buildings and various churches in Charleston have a larger scale relative to their importance and to their use by the public. In
general, because Charleston developed as a dense, urban, pedestrian-oriented city, the majority of the buildings are at a smaller, human scale.

The massing of the buildings is generally determined by the amount of available land and a sense of its capacity. Open space on the peninsula has always been a valuable commodity, especially in the hot South Carolina climate. Therefore, buildings are tall and narrow, rather than low and wide. The footprints are rectangular and the volumes are simple. The roofs are generally gables that face the street. The additions to existing buildings generally occurred at the rear where there was space to expand and often involved attaching previously detached buildings to the main structure. The secondary additions maintained appropriate relationships to the original structures. The massing of most buildings varied greatly due to their specific style, location, and use, and all future buildings should carefully consider such factors in their own site.

Often within the City and specifically on the campus of the College of Charleston, different scale buildings can be found directly adjacent to one another, or in the same vicinity. In these cases, great care must be given to the massing of the buildings. One side may be treated differently than another according to its context. Techniques should be used to break the mass of larger buildings down into smaller repetitive bays or units. Vertical setbacks also may be necessary to correspond to adjacent building heights. When appropriate, scale may be used to differentiate a building, as civic buildings and main academic buildings are, to create hierarchy within the fabric of the campus.
Architectural Elements The individual elements that compose buildings help to connect them to their environment. These architectural elements include towers and cupolas, entries, windows and doors, canopies, colonnades, archways, and porches. Although the use of architectural elements on campus is varied, they are critical to creating a sense of place and to forming the unique character of the College.
Towers and Cupolas
Vertical elements can be used to emphasize an important moment on campus and to serve as visual landmarks. The Cupola on Randolph Hall is a great example, as well as many of the steeples on neighboring churches. A tower element may be used to help connect the area north of Calhoun Street as well as the development west of Coming Street.

Entries
The entries to buildings are critical thresholds between the inside and outside, and opportunities to relate to the scale of the pedestrian. The scale of the entry is an indication of the importance and the use of the building. The raised entries of Randolph Hall and Towell Library are examples of prominent buildings and celebrated entry.

Windows and Doors
Perhaps the most crucial elements in representing the scale of a building are the windows and doors that compose the façades. The frequency, size and placement of windows define the rhythm of the façade, as well as the relationship to other buildings. The ratio of window-to-wall surface is also an important factor. The historical buildings on campus have a low ratio. Most windows on campus are orientated vertically. All of these factors should be considered when designing the façade of a new building.

Porches (Piazzas)
The use of piazzas has a historical place in the residential vocabulary of the City of Charleston. It is important that this feature be used in a way consistent to its original use and character. The pedimented portico of Randolph Hall is a porch that is being used to represent the importance of the building. In this case the porch is emphasizing the point of entry, and its scale corresponds to the size of the open space.

Surface Materials
There is a well established palette of materials on campus that help to create the unique sense of place. The materials also clearly correspond to the buildings uses.

Clapboards
The wood clapboards are used on most of the historic houses. This material requires high maintenance, but its use has contributed significantly to the
character of the College. In respect for the historic nature of the campus buildings, all repair and replacement of materials should be made with like materials.

Brick
The majority of the larger academic buildings are built of brick. This is also a historic material used in the City. The consistent use of the same brick type and color clearly defined the portions of the campus built in the 1970s and 1980s. Any future buildings that use brick should try to match the previously used material.

Rusticated Stucco
Many of the historic buildings on campus such as Randolph Hall are masonry covered in stucco. This technique has produced much of the patina that characterizes the building facades today.

The palette of materials existing on the campus should be considered as a starting point for all new construction.
Conclusion & Recommendations

It is a wonderful challenge to build within the unique context of the City of Charleston. The College shares many of the characteristics that make it unique. As the College continues to plan its growth, it does so with dedication to maintaining those characteristics that have defined it to this date. This document is intended to help others understand some of those attributes, with the hope that they will continue to represent the College and transcend the limits of a particular style and contribute to the production of quality architecture.

Maintain the Urban Fabric
- Respect and follow the existing relationship between the buildings and the streets.
- Be conscious of the many scales and building types within the City, and build within an appropriate hierarchy.

Preserve the historic context but contribute to it in a meaningful way
- Follow the general principles of proportion, scale, and massing established by the existing buildings and apply them to all construction.
- Reserve the heightened moments of hierarchy for the appropriate building, program, and site.

Maintain the character of the campus through the consistent use of materials
- Use materials appropriate to the building type and in response to the existing context.

Enhance and extend the system of open spaces
- Maintain the variety and quality of the open spaces within the established hierarchy.
- Improve the secondary pedestrian connections through the establishment of mid-block connections and interior gardens.

Integrate the buildings with the landscape
- Continue the language of site walls and the practice of foundation plantings to support the established garden environment.
Landscape Guidelines
Intent One of the unique characteristics that define the identity of the College of Charleston campus is the quality of its open spaces. A variety of spaces exist, ranging from those designed for gathering such as the Cistern, to those dedicated to pedestrian circulation that link building-to-building or street-to-street through and around the campus. The specific palette of hardscape and landscape materials that has developed historically in the core of the campus is the foundation of the Landscape Guidelines. The strength of this palette is the reason the campus evokes such vivid memories for those who experience it. The guidelines are intended to aid and inform those associated with improving, maintaining, evaluating and expanding the campus as to the unique qualities of the College’s existing and planned open spaces.
Guidelines Organization

The first section of the guidelines defines the elements of the College's landscape palette (paving, planting and lighting) are addressed individually. Combined with other elements such as gateways, walls and signage, these guidelines will serve to enhance the unique character of the campus.

The second section of the guidelines addresses how the landscape palette is used and organized to create the spaces that define the existing campus environment as well as the new spaces that will be created as the campus expands. The spaces are grouped in the following four main categories:

- Ceremonial Spaces
- Gathering Spaces
- Streetscape
- Pedestrian Streets/Passageways

The third section of the guidelines presents a specific application of the guidelines. As a case study, these improvements will be applied to Cougar Mall, defined by Randolph Hall, Maybank Hall, the R.S. Small Library and Calhoun
Street. This open space is an important part of the College's ceremonial spaces, and integral to the future development across Calhoun Street. Its existing state no longer fulfills the needs of the College. Its appearance is outdated due to an overgrown landscape and a succession of additions that have eroded the original design intent. This exercise will demonstrate how a few simple changes can transform a cluttered, unorganized space into a unique and functional open space for the College.
Landscape Palette The landscape palette represents the materials to be used for landscape improvement and expansion. The palette is derived from the historic core of the campus along with some additional elements to further enhance the College environment. The landscape in the campus core creates a unique and identifiable setting while blending with and respecting the historic quality of the surrounding neighborhoods. The palette provides specific guidelines in the areas of paving, planting, gateways, walls, signage, lighting and furniture.

Paving

A. Assessment of Needs
The extension of the College’s brick paving with granite curbing is the most effective way for the College to subtly reinforce its identity and presence within the City landscape.

B. Assessment of Existing Paving
All public sidewalks immediately surrounding the historic campus core utilize the brick and granite curbing. However, it has yet to extend to the entire campus perimeter and include all new facilities. All public sidewalks adjoining College buildings should be improved to this standard treatment including all crossings. This can occur incrementally as funds become available and should become an integral part of all future buildings and renovation projects.

C. Recommendations for New Paving
The continuation of the existing brick pattern already developed in the campus core should be used as a standard for the entire campus. Special paving such as bluestone and other unit pavers found in the historic areas of Charleston can be utilized as accents and for special buildings or areas on campus.
1. Sidewalk
The pattern and paving standard is the 4” x 8” Herringbone brick pattern on sand with mortared header and running bond patterns used for bed and tree well edging. Handicap ramps should be bricked with slopes signaled by pattern changes as prescribed by City standards.

2. Crosswalks and Street
Crosswalks should be brick edged with granite cobbles (Charleston City Standards). All crosswalks associated with the campus should be treated in this manner. They should be slightly raised as done at the new crosswalks installed on King Street. This is especially important for the crossings on Calhoun Street, Coming Street and St Philip Street to emphasize the pedestrian realm within the street corridors.

3. Entrance Transition
In key locations such as main gateways and important building entrances, variations from the brick paving should be introduced. This can be done through pattern changes in the brick to relate to architectural elements or the introduction of other materials such as bluestone or granite to contrast with the brick. Any additional material should be in keeping with the high quality of materials used on the Peninsula.
Planting

A. Assessment of Needs

Planting is a dominant feature of the campus landscape and the one most recognized by visitors. The core of the campus has a garden-like atmosphere that reinforces the garden traditions of historic Charleston. Most of the landscape in the core was planted over thirty years ago and is well established. Improvements to this landscape will result in a more beautiful, safer and more easily maintained campus core.

In comparison, the areas outside the core campus lack identity and tend to fade into the City streetscape. As an overall strategy, the entire campus needs to be treated in a manner consistent with the best characteristics of the core. This treatment includes:

- Updating the existing plant palette for the grounds. The palette needs to be refined and expanded as the campus develops a more sophisticated botanical approach, and grows beyond its core.
- Developing a street tree strategy for all campus streets to create a more cohesive streetscape in conjunction with the new paving.
- Developing a maintenance program for all campus trees that includes a detailed inventory, and a pruning and fertilization schedule.
- Reevaluating overgrown shrub plantings in the core with regard to safety, scale and the need for additional open space for the expanding college population.

B. Assessment of Existing Planting

The gardens of the core:

An overall survey and reevaluation of the gardens in the core campus needs to be done. Many of the plants have outgrown their initial purpose and now create an environment that is unsafe and contrary to their original design intent. The plant palette should be enhanced with more diversity and color to be at the same level of quality and sophistication as the private gardens throughout Charleston.
The Streetscape

New street trees should respect the traditions established by the campus renovations that occurred some 30 years ago. The live oak should dominate the streetscape supplemented by palmetto and crape myrtle along smaller and more intimate streets and on narrow sidewalks. While there has been a tradition of planting live oaks away from the curb line, future street trees should occur at the curb line to increase pedestrian safety.

The Grounds of the Expanded Campus

With the new library now under construction, gardens are being developed that integrate new large ceremonial spaces with the historic gardens of the buildings facing Bull Street. Similar garden treatment should occur with future College development.
C. Recommendations for New Planting

Street tree plantings need to be considered in the context of the entire campus and the larger City. Recommended changes include:

- The entire stretch of St. Philip Street through the campus should be treated consistently. The section north of Calhoun Street was recently planted with palm trees instead of shaded trees while the southern section has a heavy canopy. This creates a visual disconnect between portions of the campus. A common language should be established in order to reinforce the campus as an integrated whole.

- On major streets such as St. Philip Street, Coming Street and Wentworth Street, live oaks should be used as the main street tree. After widening the sidewalks on Coming and St. Philip Streets, crepe myrtles should be added along the curb line where possible.
George Street is the most important east-west street for the campus. Grape myrtles should be added on the new sidewalks from Coming Street to Meeting Street within the existing oaks. The street should be reduced to an oversized one-way lane from King Street to Meeting Street to allow for wider sidewalks.

Calhoun Street between Coming Street and St. Philip Street should have palm trees along the curb in addition to the live oaks to distinguish the College district from the rest of Calhoun Street.
Maintenance

The College's Physical Plant staff includes highly professional and motivated personnel dedicated to maintaining the campus grounds. An evaluation of all existing landscapes by a team composed of the physical plant staff and a professional design firm should be engaged in order to assure that the landscapes are cared for as designed.

When an independent team designs a new part of the landscape, a written maintenance manual should automatically accompany the project construction package. The manual should be integrated into one campus wide manual that directs all maintenance activities.
Gateways

A. Assessment of Needs
Gateways celebrate the entry from the public streets into the campus core, and mark transitions from one part of the campus to another. Many are historic, either occurring with the earliest campus buildings or with early homes that have been integrated into the campus. Gateways are essential orientation and organization tools in the campus environment. They also provide a sense of safety and privacy from street activities.

B. Assessment of Existing Conditions
Most of the existing gateways are in the original core of the campus. They are very different and yet coherent in style. They differ in size, scale and details based on their importance in the overall campus network: entries to ceremonial spaces or gathering spaces, main public spaces, alleyways, and passages. As new campus spaces are created, new gateways should be created consistent with the College vocabulary.
C. Recommendations for New Gateways

Major Gateways at the campus edges:
Buildings that act as gateways such as Porter’s Lodge are not only remarkable signals from the street but also can incorporate functions and activities. They can be passages with large arches (Porter’s Lodge) or large staircases inviting in the visitor (Randolph Hall, RS Small Library).

Large columns with gates and ironwork fences with gates are standard features in downtown Charleston. Gas lanterns are often used as focal points and signals.

Minor Gateways at Mid-block Entries and Passages
Mid-block entrances are located at the end of the main pedestrian spaces and streets on the campus. They are recessed from the right-of-way line defined by the perimeter walls and buildings. A paved area surrounded by a landscape border of flowering trees and sago palms indicates the gateway from the street. Benches and special orientation signs can be found on the edges of the flowerbeds.
Internal gates and separation
As the College incorporated streets and houses into the campus, it retained the historic fences, ironworks, and columns of each house. These elements maintain the urban qualities of the campus.

New walls and gates should be developed in the same materials as the existing perimeter walls and gates at a scale appropriate to their locations. The main material should be brick with ironwork fence. Materials should be changed only to match or integrate the surrounding building and context.

Walls

A. Assessment of Needs
Perimeter walls define the campus. The core campus possesses a very strong sense of enclosure and delineation while other areas lack continuity and cohesion. The north precinct defined in the Master Plan needs to incorporate in its hardscape plan new walls, gates and columns to maintain consistency.
with the other districts of the campus. Additions to the campus should incorporate walls to separate the campus from public streets, to define interior garden rooms and to help screen service areas.

B. Assessment of Existing Conditions
The campus walls are derived from typical Charleston historic precedents visible throughout the peninsula. Their characteristics vary upon their date of construction. The Cistern has stucco walls with ironwork above. Later sections are mainly brick walls and columns with ironwork on certain sections.

C. Recommendations for New Walls
Following the original principals of the campus core, walls should be used to:
- Reinforce the perimeter of the College.
- Limit access to the inside of the campus to important gateway.
- Screen service areas and reinforce the presence of the building in the overall streetscape.
- Organize gardens and rooms within the campus.

New walls should use the "College of Charleston" brick and the details already developed except for special circumstances.

1. Perimeter Walls
The perimeter of the main core of the campus has three types of walls:
- Tall walls used to screen service and non-public areas.
- Low walls with ironwork combined with landscape to enclose gardens, gathering spaces and screen parking lots.
- Open brick walls to provide partial view through gardens and parking areas.
2. Inner Walls

In addition to the perimeter walls, other types of walls can be found in the core of the campus. They are key elements to the unique nature of the landscape of the campus. Two different walls exist:

- Historic walls - as the College incorporated streets and houses into its campus, it retained the historic fences, ironworks and columns of each house perpetuating the urban feel of the campus.
- Seating/retaining walls - newly formed spaces on campus contain walls and furniture that separate the public realm and the private realm.
Signage

A. Assessment of Needs

Signage plays an important role as functional elements and as images that represent the College on campus. They also aid in way finding and in marking boundaries. The use of signs is a necessary part of the campus environment and the means by which visitors are introduced to the surroundings.

Signage typically serves various functions. There are signs which mark entry and welcome visitors to the campus. These signs are larger and typically incorporated into other elements such as gateways or walls. There are signs which are directional, which help visitors navigate through the campus. There also are signs which are informational or commemorative. These provide building names or indicate historic importance or donor information. In all cases the signage should be considered as part of a larger system that share similar design characteristics.
B. Assessment of Existing Signage
The signs on the College of Charleston campus are varied. A language of signs exists composed of black painted boards with gold lettering to indicate building names and uses on the smaller residential facilities. Signs on the larger buildings typically are cast bronze letters. These signs are handsome and appropriate. Other signs such as the parking signs are utilitarian and not specific to the college environment. Street signs follow the standards of the city and are another opportunity to mark the campus boundary.

C. Recommendations for Signage System
The College should work to develop a signage system designed to incorporate those signs that exist today that are successful, and that allow enough flexibility to include street signs, parking signs, directional signs, and informational signs. There should be a clear hierarchy of signs in their form and size, and a well defined palette of material, color and lettering.

As a follow-up to the Master Plan, the College should engage a way-finding consultant to help develop signage standards and an implementation plan.
Lighting

A. Assessment of Needs

Lighting is more than an aesthetic statement. It is an important safety element on an urban campus.

The streetlights are a strong component of the campus streetscape because of their clean, simple design. Their tight spacing and low height differentiate them from other Charleston streetlights. However, they are only present in the core campus. Their extension to all areas of the campus will help to define the boundaries of the College, delineate the pedestrian zone, and improve the presence of the College in the City.

Key principles that need to be followed include:
- Providing street lighting for car and pedestrian safety.
- Providing adequate and accurately located lighting within the campus to ensure orientation and security.
- Enhancing the architectural quality of the campus at night.

B. Assessment of Existing Conditions

Streetlights within the core campus are consistent and essential elements that aid in the identification and recognition of the campus. However, the rest of the campus has yet to achieve such consistency.

C. Recommendations for New Lighting

The main recommendations for lighting throughout the campus are:
- Use the same street lights and poles as the ones used in the campus core.
- Install lights at intersections, corners, and changes in the circulation network so pedestrians can orient themselves easily.
- Use spacing to provide a continuous amount of lighting (approximately 50 feet on center).
- Coordinate the placement and number of street lights with the landscape design in a particular area.
Courtyard, passages, walkways and areas between buildings

Safety is a major concern in these areas because they are typically isolated and quiet spaces. Good lighting can ensure that the pedestrian feels safe and secure at all times. The combination of up-lights in the landscape and streetlights along the paths can help achieve this level of security.

Sculpture, Artwork and Buildings

Sconces and up lights should be used to emphasize the importance of the built environment in the landscape.
Furniture

A. Assessment of Needs
Benches and seating features, bike racks, trash/ash containers and bollards are necessary items and must be incorporated as part of the landscape and building composition.

B. Assessment of Existing Street Furniture
The amount of furniture present in the core campus has increased dramatically in response to the increased population of students, faculty and staff. Unfortunately, the existing fixtures do not represent a consistent palette of quality, materials, scale or color.

The benches are typical Charleston Benches. However, their diminutive size and delicate nature make them very unpractical and obsolete in a growing student environment, and inappropriate in the context of the wide pedestrian paths, and tall, mature landscape.

The trash cans, recycle receptacles and cigarettes urns are functional and require low maintenance but are not in keeping with the quality of the campus environment. There is an imperative need for an overall cohesive furniture palette consistent with the aesthetic of the rest of the campus landscape.

The existing movable bike racks work well in their relationship to the existing ironwork found throughout the campus. Their ability to be relocated is also a positive characteristic.

Landscape types
Four types of spaces compose the network of open spaces on the College campus. These spaces use a consistent palette of plant material and hardscape, but are differentiated by their size, formality, and use. Furniture appropriate to each type of space needs to be defined.
Ceremonial Spaces

Ceremonial spaces should be generally open in nature to accommodate gatherings of large groups and to function as the foreground to large and important buildings. These spaces must also be a part of the daily life of the College and be well used by the campus population.

Furniture plays a crucial role in both the way the spaces are used by the pedestrians and also in the aesthetic composition as unifying elements. No bike racks should be allowed in the most visible areas. Benches, trashcans and lights need to be an integral part of their composition and not an afterthought.

Gathering Spaces

Gathering spaces are more intimate areas found along pedestrian paths or between existing buildings and are often occupied by street furniture to promote moments
of repose. The campus needs more intermediate size gathering spaces where small groups can congregate or simply allow for individuals to stop for a moment of rest. These spaces should:

- Be located at major crossroads and entries to heavily used buildings.
- Be sized to accommodate several benches or places to sit.
- Be well lit.
- Provide a shady and garden like environment to promote repose and peace.

**Streetscape**

The unique treatment of the College streetscape not only defines its boundaries but also provides a beautiful and comfortable setting through which to travel. The streetscape is the place where the garden environment of the campus is integrated with the street system of the City, and where the pedestrian encounters the motorist. For this reason it is often important to accommodate different scales, and multiple street furniture elements. Campus furnishing will be composed of trash receptacles, benches and bike racks at key entries to the campus.
Passages

Passages have been used for centuries as an important tool for pedestrian circulation throughout the City. Its network parallels the City street system and provides a safe environment for pedestrians. It also creates shortcuts from key locations within the City. The campus as a reflection of the Charleston urban structure has the same passage system.

The small network of pedestrian passages is critical in connecting the buildings and open spaces together and to achieving a unified campus. The narrow pathways meander in between buildings and are punctuated by small gates and open spaces. The brick paving, refined landscape and strategically located lighting are all keys to a successful pedestrian network. Benches, trash receptacles and bike racks should be located at the busiest areas close to major buildings and gathering areas.
Demonstration Space: Cougar Mall

A. Assessment of Needs
The "Cougar Mall" is a central plaza in the historic core of the Campus. As a major gateway into the campus from Calhoun Street, and a strong connection to Randolph Hall, it is a space with great potential for redevelopment based on the new Master Plan landscape guidelines.

B. Assessment of Existing Conditions
Issues:

- The space lacks a sense of cohesiveness and unity. It is visually divided into three distinct zones: the cypress corridor, the palm court, and the cougar space. The Savannah hollies along the buildings are the only common elements throughout the space.
- The landscape is overgrown resulting in a safety problem and a visual eyesore as well as an obstacle to pedestrian traffic.
- The low branches of the three existing cypress block the view through the space.
- The increased number of students has produced the need for more pedestrian space. The pathways are too narrow to accommodate the traffic flow. The central landscape area limits lateral circulation. Larger paved areas are needed.
The furniture, including benches, ashtrays and trash receptacles, are randomly located and do not add to the composition of the space. The benches are isolated and do not promote gathering and conversation. The lack of aesthetic quality and cohesion between each element produces an unharmonious visual experience.

- Bike racks are in inappropriate locations blocking paths and interfering with pedestrian traffic. More discreet areas should be identified.

- The sculptures have been added through time and bring a sense of formality and interest to the space. This should be enhanced and encouraged. Their location should be revised and their visibility improved.

- The lights, originally marking the edge of the paths, are now hidden within the holly canopies and no longer provide a clear structure to the mall.

- The entry from Calhoun Street is unclear and too narrow. The two flights of stairs on either side of the raised planter are inadequate for student traffic. The cougar sculpture, a main feature on the campus, is relatively invisible and unreachable due to its location behind overgrown hedges.

C. Recommended Changes

Landscape:

- Remove all ground level landscape in the center of the plaza, including oversized hedges and grassed area. The short palmets at the center of the space will be relocated.

- Preserve the bald cypress. Remove lower branches to allow pedestrian circulation under the trees. Add two more cypress in between the buildings at the stair area. This will create the visual link between each area.
- Enlarge the planting beds along the building walls.
- Remove all low planting material along the buildings and keep only the larger Savannah hollies and specific plant specimens such as pruned podocarpus.
- Replace the shrubs and ground cover in the beds along the buildings with a large variety of appropriately scaled plant material adding color and accent.
- Preserve and relocate the palms to the corners of the building entries and in front of the two buildings across from Randolph Hall.
- Remove all plantings around the Cougar statue.
- Relocate the two palms to the back of the Cougar statue and in the center of the paved area to serve as background for the statue.

Hardscape:
- Pave entire area with brick band and herringbone field to redefine the space and add more pedestrian area. This also will help to support and organize the rest of the landscape.
- Remove existing double flight of stairs and central retaining wall at the Cougar statue. Add four large continuous monumental steps that will stretch from one side to the other leading the pedestrian directly to the center of the mall.
- Relocate existing statues as necessary and incorporate the Cougar statue in the steps, making it visible from Calhoun Street.

Lighting:
- Remove light poles from under the trees and relocate them to the paved areas in the center.
- Locate lights on the centerline of the space at key locations such as statues and at building entries.
Furniture and Signage:
• Replace furniture and signage in accordance with the new standards.
• Organize the furniture to complement the overall composition of the space and to promote conversation. Plank pedestrian space with rows of benches.
• Relocate bike racks to one defined area behind the benches and low hedges in front of 4 Greenway. They will be visible yet off the main pedestrian visual corridor.
• Remove the bulletin board from the entry of Maybank Hall and replace with benches.
• Upgrade the roof of the kiosk on Green Street from wood to metal finish.

Appendix
Landscape Specifications
Benches:
• Manufacturer: J&M Foundry Inc
  Model: G&M Park Benches
  Cast Iron Legs - 9 IPE/Bethbhara Wood Slates
  Stainless steel fasteners and support rods
  Powder painted Charleston Green or black
  Height: 35 1/2" Length: 2', 4', 6, and 8'

Bollards and Markers:
• Manufacturer: Ironsmith
  Model: M9023 Salem Bollard- Cast Iron painted black
  With imbed integral to casting.
  Height: 2'11" - 1'3" diameter base
  Or
  Precast concrete bollard to match City of Charleston Bollard Standard
  Height: 3'
Trash Receptacles:
- Manufacturer: Victor Stanley
  Model: Ironsites Series: S-42 Metal trash 3/8" thick
  Solid Steel bar painted black - side door opening
  36 gallon
  Top cap optional
Recycle Receptacles:
- Same as above with Recycling Logo painted on top ring

Cigarette Urns:
- Manufacturer: Victor Stanley
  Model: Ironsites Series: S-20 Metal Ash Urn 3/8" thick
  Solid Steel bar painted black
  Stainless steel ashtray.
  Or:
  Ironsites Series: S-42 Metal trash 3/8" thick
  Solid Steel bar painted black - side door opening
  36 gallon with stainless steel ashtray attachment.

Bike Racks:
- Two types of bike racks are already existing on the campus: the movable fence and the fixed fencing system with brick base. The movable one could be improved aesthetically to resemble more a traditional fence, while the fixed one will need to be located in more accessible areas with brick paving on both sides.

Emergency Phones:
- Match existing emergency phones on campus and mount on Standard light pole.
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