The physical arrangement of buildings and their related green spaces along with their cultural history, creates “the sense of place” in our human environs. Nowhere is this more demonstrable than on college and university campuses, which are generally framed around a central iconic space, often the original site development. This space at the University of Virginia is the World Heritage site of the Academical Village, designed and built by Thomas Jefferson and his team of builders and craftsmen, often referred to as the model for American university campuses. The spatial order of the Academical Village is based on the interrelated design of site; buildings and landscape, characterized by a thoughtful, balanced, and continuous sequence of structures and outdoor rooms. Moving from the Lawn, beneath the Colonnades, and into the gardens beyond, one experiences a rich spectrum from public to semi-private spaces. The success of this assembly of building, landscape and movement is found elsewhere on Grounds; however, there are also many places where the scale and continuity of space is less thoughtfully conceived. Responding to changing demands of growth and transportation, UVa development since Jefferson’s time has shifted to common urban and suburban patterns/practices, unable to hold to the intimate relationship of the original campus. As a result, it is difficult today to experience the overall cohesiveness and clarity-of-place so evident in the early campus.

In the belief that certain proven qualities of Jefferson’s Academical Village can be transferable to other parts of the Grounds, the following approach is prescribed in the 2008 Grounds Plan:

- The Academical Village was designed as a formal complex inserted into a native and agrarian woodland environment featuring rolling terrain, upland forests and flowing streams. The drama of this powerful contrast between built geometry and the softness of natural form heightened the awareness of both. It is this point/counter-point drama that produced the special kind of distinctiveness inherent in the Jefferson plan.
- Current planning and design practices can recapture these juxtapositions at both the level of the individual project and the level of systems, natural and man-made, without emulating the specific physical forms of their historical counterparts.

In implementing these steps, the University’s avowed commitment to sustainability and its related principles will enable us to reestablish a coherent spatial order on Grounds. The environmental aspects of sustainable planning practices will be evident in the management of open space, the continuation of stream rehabilitation, the conservation of wooded lands, and the care of the landscape. The economics of sustainability will be witnessed in increasing use of cost/benefit analysis in making both capital and operating decisions, the judicious use of existing utility infrastructure, and the prevention of further unnecessary expansion in land use practices. Equity will be witnessed by site and facility accessibility, continuation of free public transit and the promotion of community use of shared facilities. Through these practices embedded in, and encouraged by, the 2008 Grounds Plan, the University of Virginia will be able to sustain its originally intended mission of educating the future empowered citizens of the Commonwealth and the world.

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“Then I say, the earth belongs to each of these generations during its course, fully and in its own right. The second generation receives it clear of the debts and incumbrances of the first, the third of the second, and so on. For if the first could charge it with a debt, then the earth would belong to the dead and not to the living generation. Then, no generation can contract debts greater than may be paid during the course of its own existence.”

-Thomas Jefferson to James Madison, 1789
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Appendix
MAGINE that in the next 10 to 20 years, we can begin to reshape Grounds to reflect the civic intent and environs created by Thomas Jefferson’s Academical Village. Through a sequence of physical improvements providing anchor and connection points throughout the Grounds, and prescribing growth within the developed areas, this Plan is intended to recapture the spirit imbued in the Academical Village. Among the important changes proposed by this Plan are:

- A clear development boundary (US29/250 Bypass) designed to emphasize compact growth through infill and redevelopment.
- Preservation of the historic buildings and cultural landscapes, as well as vestiges of the wooded realm through conservation of Observatory Hill and the North Grounds woods.
- Three revitalized academic neighborhoods created by adjusting roads and current uses to make more effective use of the University’s land resources.
- Two new major green spaces to provide community focal points for North Grounds and West Grounds, reflecting and balancing the Lawn in the Central Grounds.

These and other shifts in the management and use of land within the Grounds are designed to create a cohesive and yet flexible land use plan. Building upon the programmatic strengths of the University of Virginia, the 2008 Grounds Plan will guide land use planning and physical growth for the next twenty years to capitalize on the potential of existing and new facilities, and offer superior environments for future academic, residential and related endeavors. The core of Central Grounds possesses a world-class inventory of historic buildings and landscapes that create a unique identity and serve
as a model of the living-learning environment central to the vision of the Academical Village. The diversity of academic pursuits, persistence of personal freedom, and importance of social responsibility within the University community are among the defining qualities of this institution as envisioned by its founder, Thomas Jefferson, who placed a high value on interaction and the exchange of ideas. While the growth of the University has enabled a variety of opportunities for educational enrichment, the manner of that growth has gradually divided the University both physically and psychologically. Thomas Jefferson started with a multi-use concept for the University, and the 2008 Grounds Plan returns to this powerful planning paradigm as it works to overcome the latter-day divisions.

A STRATEGIC APPROACH

In accommodating the physical growth and redevelopment that are essential to fulfilling the University’s academic mission, the Plan views the Grounds as an integrated, contiguous series of multi-functional facilities and green spaces linked by a network of natural and man-made systems. Viewing these systems in a holistic relationship will yield more efficient use of available resources, and create a richer, more dynamic environment on Grounds. To accomplish these goals at the scale of the University requires a strategic approach, based on five primary principles reviewed in 2006 and adopted in 2008 by the Board of Visitors. Linking these principles is the overarching concept of sustainability, which asserts that growth and change can be accommodated while resources are conserved for future generations.

- **Environmental Quality**: to protect and restore our natural environment
- **Connectivity**: to increase the quality and continuity of linkages throughout the Grounds
- **Context**: to promote beneficial physical relationships with the surrounding community
- **Multi-disciplinary Collaboration**: to develop mixed-use facilities in support of academic interaction and collaboration
- **Preservation**: to maintain and enhance the University’s cultural, building, and landscape resources

Physical growth is an issue that cities, towns and institutions continually address. Ineffective management can result in the development of greenfield sites - open, previously undeveloped lands - rather than the more
sustainable redevelopment of underutilized infill sites. The greenfield pattern of development is of concern because it damages the ecosystems that we depend on for our health and wellbeing, separates us from one another by greater distances, threatens the identity of places that are memorable and is far less economic in results than infill development. While the University faces similar pressures related to growth, it is well-suited to counter these trends and simultaneously continue to evolve as a premier institution of higher education.

A conventional campus plan would focus on defining specific building sites for future growth. Instead, the 2008 Grounds Plan recommends the establishment of Redevelopment Zones, a unique approach to campus planning making use of tools that are normally applied to city and community planning. The Redevelopment Zones (see page 6) target future development to areas where mixed-used infill development and redevelopment of existing facilities will create the greatest possible benefits in accommodating the variety of spaces and uses that comprise the University now and in the future. These targeted zones also allow for the conservation of important green spaces that contribute to the health and identity of the University-at-large.

**ORGANIZATION OF THE PLAN**

The Plan provides background and a process for evaluating the land use potential within all of the University Grounds. First, **The Setting** (Section 1) surveys the history of planning at the UVA, providing the context for current planning efforts and establishing precedent for the mixed-use approach advocated by this Plan. Second, the physical **Framework and Systems** (Section 2) that form the University (land use, natural systems, transportation, and infrastructure) are analyzed to derive opportunities and constraints, guiding the implementation of redevelopment zones. Third, a discussion of the human systems, **Program and Precincts**, (Section 3) shows how this innovative approach can meet the future needs of the University for the next twenty years. Finally, **Case Studies** of projects already completed or underway (Section 4) demonstrate how the objectives set forth in this Plan can be achieved in practice.

The Office of the Architect for the University (OAU) would like to acknowledge the guidance provided by the Master Planning Council Presidential Committee (see Resources and inside of back cover). Council members worked with OAU planning staff throughout the development of the Plan, and provided key insight into the culture and practices of the University in support of respectful stewardship of the institution. OAU developed and managed the entire process of the 2008 Grounds Plan.

In addition, OAU acknowledges support from our valued collaborative consultants:
- **Vanasse Hangen Brustlin of Richmond, VA**, who developed a comprehensive Transportation Demand Management Plan, Phase 1, 2007
- **Ira Fink Associates, University Planning Consultants of Berkeley, CA**, who developed the faculty-based Space Needs Projection Planning Model, 2007
- **ARUP of San Francisco and New York**, who developed the Grounds Plan Sustainability Assessment with the use of the ARUP SPeAR program, 2007
**REDEVELOPMENT ZONES**

**The purpose of Redevelopment Zones:**
The Redevelopment Zones, shown on page 6, form the framework for future development on Grounds. Within these zones, the stated objectives of proposed projects can be evaluated against the long-term needs of the University, the principles we encourage in our community, and the historical and cultural context that generates the University of Virginia’s unique identity.

1. **How Redevelopment Zones were established:**
   Guided by criteria identified by the Office of the Architect for the University during the 2004-2007 planning process, the entirety of the University Grounds was analyzed to identify opportunities for development (areas where support infrastructure is robust and human systems are active). The principle of environmental quality was applied to identify constraints on development (natural/conservation areas that are most sensitive to negative impacts of development). Redevelopment Zones were categorized according to the existing uses or those of the adjacent areas (academic mixed use and residential mixed use).

2. **How Redevelopment Zones were tested:**
   Once established, these Redevelopment Zones were evaluated as to whether they could accommodate planned growth for the twenty-year horizon. Two past and two future planning horizons (1995, 2005 / 2015, 2025) were used as benchmarks for this process, and the results showed that the Redevelopment Zones would accommodate the planned 20-year growth for the University while effectively bridging the physical gaps between areas of Grounds; thereby curbing the outward expansion of University facilities.

3. **How Redevelopment Zones are used:**
   When a new project is proposed, parameters of the facility’s proposed size, infrastructure requirements and intended use will determine which redevelopment zone the project is located within. This encourages collocation of facilities according to academic research pursuit, residential needs, and related support infrastructure. Next, an analysis of sites within that zone will determine the project location based on the criteria to:
   - Incorporate the principles of sustainability,
   - Maximize site utilization,
   - Minimize cost and time for implementation,
   - Support the aesthetic character of the University, and
   - Reinforce functional relationships within and between the various systems and precincts that define the University.

Adhering to the goal of sustainability, the 2008 Grounds Plan will be used to evaluate proposals for infill redevelopment; assuring managed growth that preserves opportunities for future generations, minimizes the negative externalities associated with development, and maintains the mixture and variety of activities that give the University of Virginia its unique identity.
These designated Redevelopment Zones will be used to accommodate University growth for the next twenty or more years. There are two types of Redevelopment Zones, academic/mixed use and residential/mixed use. The academic/mixed use will accommodate University buildings that are associated with teaching, research, libraries, student services and University community uses. These buildings are planned to be an average of four floors and multi-use with a blend of disciplines and community uses such as cafes and auditoria. The overall density of Grounds (measured through floor area ratio - FAR - see page 46) is planned to increase, while maintaining the vital balance of green space that is essential to the character of UVa.

The residential/mixed use will accommodate University housing ranging from residential halls to family housing and related facilities such as dining halls. These zones are programmed for an overall 20% increase with planned building heights of four to five floors. This 20% increase will be achieved through increased building height and more efficient use of the sites, such as relocating parking to an adjacent facility.

What planners refer to today as “mixed use” remains very close to the original Jeffersonian conception of the Academical Village. The University was modeled after a town or village - an all-inclusive settlement embodying Jeffersonian’s agrarian ideals. This marriage of pedagogy and planning at the University remained his own distinctive contribution, and continues to this day with the varying uses of the University being woven together in an interspersed pattern of land use.

The two types of Redevelopment Zones signify this mixed use approach and the direction of continued future (re)development on Grounds. The Redevelopment Zones provide for the inclusion of green space with a system of “places and links”, destination green spaces and the connecting elements that will work together to compose a comprehensive green space system linking uses throughout the Grounds. The places are both civic and naturalistic, such as the Lawn and the Dell, and include existing and proposed green spaces. Primary links consist of the University’s road and pedestrian networks, as well as the stream courses flowing through the Grounds. These are supplemented by the academic centers located in each of the three precincts.
The University has come to appreciate that its special character and sense of place derive not just from Jefferson's buildings, but from the ensemble of buildings and settings which forms the current Grounds. They document the evolution of the University, its sense of itself, and of the broader national idea of what a university campus should be. The 2006 Historic Preservation Framework Plan is an effort to recognize the importance of these later buildings and landscapes. It describes their histories, analyzes their importance to the development of the University, and evaluates their design and current condition. Finally, the plan assigns a preservation priority to each building and to the components of the landscapes, indicating their relative importance to the history and development of the University.
THROUGHOUT its history, the University has been challenged to move forward as circumstances and continuing goals demand, while maintaining the ideological foundation of Jefferson’s vision—the interdependence of design and pedagogy—and the planning paradigms that he developed to implement that vision. The history of the planning of the University is in one sense the history of an institution that was burdened with a rich, inspired and self-contained scheme early on, and has struggled to work out how to build on it on ever since. For much of the University’s history, this question has confronted planners, engineers, administrators and architects, each with their own training and set of beliefs about how to best go about nurturing or modernizing, growing or conserving, clearing or rebuilding the Grounds. In addition, nearly every era of the University’s planning history has been marked by forceful national and local influences.

Particularly important has been the interdependent history of Albemarle County, founded in 1744, the city of Charlottesville, founded by charter in 1762, and the University, founded in 1819. Thomas Jefferson was not only the founder of UVa, but also an important figure in the history of the region. Monticello and the Academical Village, two local sites which share a UNESCO World Heritage site listing, are vestiges of Jefferson’s imprint here and on the nation. The University and its surrounding community have influenced each other and grown together in countless ways.

Focusing on the Plan’s principles of preservation and context, this section looks to the past to understand the historical context in which we make today’s planning decisions. The history of planning at the University reveals a lively exchange of ideas that is only hinted at by the architecture and planning of the Grounds today. How the University has adapted to political change, strong
leadership, social change, and technological advances are just a few of the broader currents that have marked the history of planning at the University of Virginia. With each era, the University’s stewards have taken up new planning ideas and the established traditions to determine the best way forward.

THE ACADEMICAL VILLAGE: JEFFERSON’S VISION

By the time the University opened its doors to students in 1825, there were forty-five colleges and universities operating in the United States. Like the designers of these colleges, Jefferson was confronted with two planning questions: First, the site and context—specifically, the relationship of the University to the town—had to be considered. Second, the disposition of the residential, academic, and social functions had to be determined: would these functions be housed in a single, multi-purpose building, or distributed in separate structures? If separate structures were chosen, a further question arose: how would these structures relate to each other?

English colleges such as Oxford or Cambridge had a physical plan comprised of quadrangles that had evolved from informal collections of buildings into wholly enclosed and separate spaces. This plan provided students with a cloistered and secure area for their studies, but relied heavily on the community for amenities. For political as well as pedagogical reasons, early American colleges rejected or substantially modified this model. The College of William and Mary, attended by Jefferson, typified the conventional early American college plan: a single, all-purpose building of several stories that housed multiple functions. Also unlike English colleges, many early American colleges were established outside of urban areas, although some, notably Yale and Harvard, were integrated into the town fabric.

As Jefferson developed his ideas for the University of Virginia, he looked to different models. A lawn-type plan from South Carolina College (now USC-Columbia), designed by Jefferson’s protégé Robert Mills in 1803, and a horseshoe plan for Union College in New Jersey (1813) by Joseph-Jacques Ramée may have been references for Jefferson. Some urban institutions, the rural agricultural villas of Palladio, and Marly Le Roi, Louis XIV’s elaborate garden and palace, are other possible sources. While it is certain that Jefferson absorbed many forms of architecture and planning for his own design experiments in the years before ground was broken in 1817, his particular conceptual relationships ultimately guided the final design.

First, the University was modeled after a town or village—an inward-turning, human-scaled, all-inclusive settlement, embodying Jefferson’s agrarian ideals. This goal of self-sufficiency accounts for the selection of a site about one mile from the nearest town, Charlottesville. The basic plan was that of a horseshoe or open-ended quadrangle arrangement of one- and two-story
Rotunda was allocated from the outset for Sunday worship services—but in its determinedly secular focus, the plan for UVa was one of the most radical statements on the rational basis of the American democracy and its doctrine that had yet been made.

There were no stables, slave quarters or trades accommodated in Jefferson's Academical Village, embodying Jefferson's agrarian ideals (although they were added shortly after classes began). In all, it was an idealized company town, planned for one industry—learning—around which all other functions were either subordinated or eliminated. Although Jefferson drew on certain traditions in his design, the marriage of pedagogy and planning at the University remained his own distinctive contribution.

Although the University defined itself apart from Charlottesville, the local community would become an increasingly significant context for the University's growth. Established in 1762 as the Albemarle County seat, Charlottesville provided a counterpart for Jefferson's Academical Village. Like the University, Charlottesville had a secular center, the courthouse, where religious services were held, but had no purpose-built church building until 1824. Lack of access to a major waterway accounts for Charlottesville's slow growth prior to the arrival of the railroad in the mid-nineteenth century. Both the Universi-
ty and the town relied on the major east-west route from Richmond, called 3-Notched or 3-Chop’t Road, as the main source of people and manufactured goods. After the establishment of the University, Charlottesville, which had been designed as a gridded town, began to grow emphatically westward along this road, toward the University. Several tradesmen who worked on the building of the University, such as James Dinsmore, Captain John M. Perry, and George Wilson Spooner, Jr., (later Proctor of the University) became involved in land speculation and development in Charlottesville. Charlottesville and the University would continue to grow together.

THE FIRST CHALLENGES: 19TH-CENTURY CHANGES
As the University struggled to establish itself academically, it would be over twenty years before the University added to Jefferson’s plan, and another twenty-five years before the University constructed a new, standalone academic building. These first changes introduced to Jefferson’s plan stemmed from forces within and outside the University.

The first substantive addition to the University Grounds was not new construction, but the acquisition in 1820 of the Monroe Hill property. The extant buildings included a few domestic-scaled structures that were to be used for housing students. One housed the Proctor; twelve additional student residences were built in 1848. The Monroe Hill dormitories were ultimately set aside for “staties”—Virginia students on scholarship. In segregating the students by economic class, the University undermined the social parity envisioned for Lawn rooms and introduced a distinction between the periphery and the center that has continued to challenge the University’s planners.

By the 1850s, the student body had more than doubled in size, from 175 students to 403, necessitating both new
student housing and new classroom space. A second addition to the Grounds was completed to ease the pressure on academic space: the Annex, a large multi-purpose expansion of the Rotunda, designed by Jefferson’s protégé Robert Mills and completed in 1853. Like the Monroe Hill property, the Annex was not technically a new building, and, like the Monroe Hill residences, it represented a departure from Jefferson’s original intentions. The Annex contained a large auditorium and classrooms, and in essence ignored the Jeffersonian model of small classrooms and close master-pupil relationships. In addition, the Annex’s site on the north side of the Rotunda did not participate in the life of the Lawn, but created a formal northern entrance to the Academical Village along 3-Notched Road where none had existed before.

The primary responsibility for the physical fabric of the University resided with the Proctor until 1855, when civil engineer William Pratt was hired to assist with the management of Grounds. In 1858, the Board of Visitors established the position of Superintendent of Buildings and Grounds, in which Pratt served from 1858-65. The creation of the Superintendent position was a shift in the management of the University, acknowledging that the care and planning of the Grounds was now a full-time occupation, rather than one that could be shared with other duties.
The changes introduced by Pratt again responded to challenges from within the University and influences from outside it. Part of Pratt’s mandate was to make the University more healthful by improving its infrastructure. Typhoid epidemics had battered the University population in 1820s and 1850s; the first burials in the University Cemetery were due to the epidemics. Clearing the landscape of additions, buildings and obstructions that had accrued behind the Pavilions and around the gardens was a necessary first step. A healthful water supply and effective drainage became of paramount importance. In addition, Varsity Hall, a state-of-the-art infirmary, was designed to treat students when they fell ill, while Levering Hall, a gymnasium, was intended to promote the general welfare of the student body.

Another of Pratt’s mandates was to repair the dilapidated state of the landscape. In doing so, his romantic building and landscape designs reflected the interest in the picturesque that captivated the country’s imagination at this time. A drawing by Pratt survives to illustrate how the University may have been transformed in the then-current architectural fashion, which found parallels at the campuses of many colleges and universities, such as the University of Michigan, New York University, and Davidson College, designed by Alexander Jackson Davis, the most important campus designer of his generation. In Pratt’s plan, a road circumnavigates the Academical Village, even passing through the portico between the Rotunda and the Annex. From this road, a series of curvilinear paths radiate outward through open space that resembles a large park.

The Grounds of the University were envisioned as a contemplative, pedes-
trian landscape, in which the Jeffersonian buildings were
nested like jewels or architectural follies. Although it is
not clear how much of Pratt’s plan was executed, there
is evidence of Pratt’s paths and garden walks from this
period. Buildings constructed during Pratt’s tenure,
such as the Gothic Revival Gatekeeper’s Lodge (1856)
also reflected these design ideals. Pratt’s design en-
circled Jefferson’s with a romantic park which provided
positions for some new buildings—Varsity Hall and the
Gatekeepers Cottage notable among them—but it did
not anticipate significant future growth of the institution’s
student body and related facilities.

At the University as elsewhere, the appeal of the pas-
toral vied with the reality of an increasingly industrial
landscape. The 1850 arrival of the railroad in Char-
lottesville both constrained the physical boundaries of
the University and increased the ability of goods and
people to move through the region, providing significant
opportunities for growth. The east-west Virginia Central
Railroad and the north-south Orange and Alexandria
lines met at Charlottesville and bounded the University
on the north and east, creating a formidable barrier
to the University’s physical growth. The economic ef-
cfect was broader. Investment in the railroad drove up
land prices throughout Albemarle County, consolidating
wealth in the hands of a few powerful families. The
eease of moving goods to and from the city facilitated
the development of a manufacturing sector of the econ-
omy, most notable in the construction of fabric mills ad-
Jacent to town. By 1860, the town of Charlottesville had
tripled in size from the early days of the University.

This period of expansion abruptly ended, however, with
the outbreak of the Civil War in 1861. By the end of
the decade, the University faced curtailed enrollment,
unstable finances, and decayed buildings and grounds.
Growth and planning came to a virtual standstill during
the Civil War, when many of the University’s buildings
and open spaces were appropriated for the war ef-
fert, particularly as a Confederate hospital. William
Pratt’s position as the Superintendent of Buildings and
Grounds was among those eliminated at the onset of
the Civil War, and care and planning for the University’s
Grounds reverted to the Proctor.

After the war, the Rector, Chairman of the Faculty, and
the Proctor shared responsibility for the direction of
planning and building. An energetic advocate for the
University, Major Green Peyton, Proctor from 1867-82
and again from 1886-97, saw the University through
both the post-Civil War recovery and the post-Rotunda
fire rebuilding process. Peyton spearheaded needed
improvements in infrastructure, including a new reser-
voir at Observatory Hill in 1867, which was followed in
1884 by the Ragged Mountain Reservoir, a larger wa-
ter project built in partnership with the town of Charlot-
tesville. A general sewage system for the University was
in place by 1886, and two years later the University
made the transition from gas lighting to electric lighting
and power.
New buildings during Peyton’s tenure embodied the influence of national trends in their function and pushed University development towards the periphery. The museum of natural history, now known as Brooks Hall (1876), was the first new free-standing academic building since Jefferson’s time. Along with the McCormick Observatory (1882), Brooks Hall demonstrated a new emphasis on the sciences, funded by northern patrons who sought to strengthen the educational foundations of the recovering South. The building’s eclectic Victorian exterior, contrasting markedly with the rest of the University, was characteristic of the sort of design supported at colleges and universities elsewhere. According to architectural historian Paul Turner, the university patron of this era was often a wealthy industrialist with a self-made fortune who favored single buildings with a distinct and original architectural profile to distinguish their contributions from the rest of the ensemble.

Two other new buildings were affected by trends from outside the University. Efforts to construct a chapel had begun in the 1830s, despite Jefferson’s clear preference for a secular institution. Although a Parsonage was built southwest of the Lawn in 1855, it was not until 1890 that objections were overcome and sufficient private funds were raised to construct the stone Gothic Revival University Chapel that now stands just east of the Rotunda. Fayerweather Gymnasium (1893), sited across University Avenue from the Chapel and the Rotunda, responded to the growing interest in athletics and intercollegiate competition. Unlike the chapel, however, the gymnasium’s design was intended to align it with Jeffersonian architectural tradition.

Sited on axis with the Rotunda Annex and the East Range, but facing resolutely outward toward Charlottesville, Brooks Hall declared a new relationship between insiders and outsiders, the University and the town. The construction of Fayerweather Gymnasium on the Carr’s Hill property, the site of student boarding houses since before the University purchased the property in 1867, initiated the development of the land north of University Avenue as a mixed-use residential and recreation precinct. Both buildings pushed non-academic functions to the periphery of the Grounds. As the University took these steps towards Charlottesville, the town was growing to meet the University.
In the post-Civil War era, the town boundaries of Charlottesville expanded twice—in 1873, and again in 1888. By the late nineteenth century, the Charlottesville Land Company had purchased a large tract of land east of what is now Rugby Road and laid out the current street pattern, preparing the former farmland for development. With the advent of streetcars in 1895, travel between the town, train station and the University improved, and, with the shared Ragged Mountain reservoir project in 1884, the town and the University were further linked through their common infrastructure.

BEGINNINGS OF COMPREHENSIVE PLANNING: THE ROTUNDA FIRE TO WORLD WAR II

In response to the opportunity created by the catastrophic Rotunda fire of 1895, the Board of Visitors moved towards developing the Grounds through comprehensive planning. They signaled their resolution by hiring McKim Mead and White in 1896 to design its post-fire building campaign. The firm’s work at the Boston Public Library and Columbia University had demonstrated its facility with Renaissance-era classical design set within a Beaux Arts planning paradigm.

The three buildings with which the firm closed the south end of the Lawn—the Academic Building (Cabell Hall), the Mechanical Laboratory (Cocke Hall) and the Physical Laboratory (Rouss Hall)—provided much-needed modern laboratory and classroom space for the University. An admirer of Jefferson’s original design for the Lawn, Stanford White set the buildings into the sloping landscape to diminish their scale and to make them subordinate to Jefferson’s buildings. Intended to update and extend Jefferson’s legacy—whose importance was beginning to be more broadly recognized at this time—the new construction offered Jeffersonian architecture reconceived and reframed within a rational Beaux Arts plan. At the same time, the closing of the Lawn was seen by many as a decisive step away from Jefferson’s original intention to leave views to the distant mountains open. The location of the three buildings that closed the Lawn—one of two options for their placement provided by McKim Mead and White—was chosen specifically by the Board of Visitors.10 11

McKim Mead and White’s plan for the area south of the Lawn originally called for eleven new buildings, but only five, including Garrett Hall and a power plant behind Cabell Hall, were constructed. A funding shortfall left incomplete most of the graceful courtyard landscaping intended to connect the buildings and reflect complementary designs for the plaza north of the Rotunda.

Other changes, of equal planning significance, resulted from the fire. In the period of recovery after the fire, the need for even more authoritative and consistent leadership was evident. The University had been governed for close to 90 years by a Board of Visitors, appointed by the Governor, and by the University’s faculty, led by an annually rotating Chairman. In 1904, the University appointed its first President, Edwin A. Alderman, a progressive professional educator. The selection of the first president from outside the University community was a bold gesture directed at raising the institution’s national profile. Working at Tulane and in North Carolina’s university system, Alderman had built his career on a strong belief in public education and a dedication to elevating the struggling southern higher education system. Along with emphasizing the social sciences, education training,
and graduate programs at the University, Alderman encouraged the growth and planning of the University as an important facet of progress and modernization.

In 1906, Alderman engaged landscape architect Warren H. Manning to begin a study of the University Grounds. Manning, immersed in the City Beautiful tradition, was particularly well-versed in horticulture and plantings. According to landscape historians, Manning’s conception of the City Beautiful focused more on regional and neighborhood centers than on monumental civic buildings, and his work at the University demonstrates his facility with Beaux Arts quadrangles, earlier used by McKim Mead and White, on a smaller, more domestic scale.

Only portions of the Manning master plan were ultimately built. Manning himself executed four unique garden designs for the East Pavilions in 1913. Architect Eugene Bradbury designed several fraternity houses following Manning’s plan for the Carr’s Hill precinct. William Lambeth, Professor of Medicine, Chairman of the Department of Physical Education, and Superintendent of Buildings and Grounds, also worked with Manning. Lambeth was responsible for much of the early development of the varsity sports programs and the athletic precinct, which included Lambeth Field and Colonnade, and the never-completed Field House. With Manning, he wrote Thomas Jefferson, Landscape Architect, the first comprehensive assessment of the landscape of the University, acknowledging it as a distinct design feature.

Due in great part to the efforts of Lambeth and Manning, the landscape of the University became an important design consideration. In their plans, the University’s landscape was evolving into a more urban design. Just
as the South could no longer see itself as a region or a culture unto itself and survive, the conception of the University as an Academical Village, separate from town concerns and wholly dependent on a self-sufficient landscape was no longer viable. Thus, Manning’s rational Beaux Arts planning modules were not organized by either ornamental promenades or productive agricultural lawns, but as small units within a whole that was linked to a broader urban fabric. With the increasing density of the University and the encroaching development of town, open space and landscape features were important design elements, forming the experience within and between precincts; balancing architectural assemblages inside and outside the University boundaries.

Manning’s plan initiated a further change when, after World War I, a new gymnasium was built along Emmet Street, on the western boundary of the Grounds. This was the inaugural move in the development of a western quadrangle originally shown in Manning’s plan. Memorial Gymnasium was the first major project of the Architectural Commission, the principal design and planning body at the University from the early 1920s into the 1930s. The quadrangle was to include dormitories and a series of landscape elements including paths, terraces and a large reflecting pool to connect the complex to the Central Grounds.13

Although the precinct was never completed, the increased activity at the western edge of the Grounds provoked a reconsideration of the area immediately west of the Academical Village, leading to its significant reconstruction. The heightening of expectations as a result of the University’s new national recognition led to an expansion of its facilities. A group of early- to mid-19th century buildings was replaced. Among those was the Jefferson-designed Anatomical Theater, which was demolished following the construction of Alderman Library. The main north-south road to the west, known at that time as Observatory and now as McCormick Road, had become the most active area of the University and many of the new buildings were sited close to it. The placement of Monroe Hall, Clark Hall and Thornton Hall along McCormick Road, but aligned with the grid of the Academical Village, demonstrated that the circulation system was now a planning device to complement the Jeffersonian axes. By the interwar years, a series of road improvements followed, or perhaps encouraged, the University’s development south and west of the central core.
Just outside the formal boundaries of the University, development continued to blur the line between Town and Gown. Residential growth increased in the neighborhoods adjacent to the University to accommodate the rapidly growing medical, nursing, and college enrollment, as well as faculty increases. Despite what local historians have characterized as significant out-migration of the population in the 1920s, due in part to Jim Crow segregation laws and the continued decline of agriculture, the town of Charlottesville expanded its boundaries again in 1938.

**MID-CENTURY: MANAGING POSTWAR GROWTH**

The expansion of the student population, the increasing complexity of decision-making, and the growing importance of science presented the main challenges for planning under the presidencies of Colgate Darden, through the 1950s, and Edgar Shannon in the 1960s and 1970s. The development of the University under Darden took two tracks: refocusing activity inward toward the Lawn so that the Central Grounds would be re-activated, and expanding the engineering and physics departments to capture the interest of potential students and the influx of Federal funding sparked by the Cold War. The re-focus on Central Grounds entailed a number of different steps:

Several restoration projects returned attention to the Lawn. A Tree Committee was responsible for planting dozens of new trees on Grounds. The West Pavilion Gardens were renovated by the Garden Club of Virginia under the supervision of Colonial Williamsburg’s landscape architect, Alden Hopkins; the Warren Manning gardens were replaced with Colonial Revival designs intended to be more in keeping with what might have been present during Jefferson’s time. The East Pavilion Gardens were similarly renovated in 1964. A project for the restoration of the Rotunda to the “Jefferson arrangement” was begun, and, from 1949 onward, an important function of the Lawn was restored when a representative faculty member from each of the six schools resided in the Pavilions.14 15

As part of an effort to organize the movement of pedestrians and vehicles, and to keep student activity oriented towards Central Grounds, a new multi-story hospital building, begun under Darden but not underway until 1958, was sited with the entrance facing Jefferson...
Park Avenue, rather than inward toward the Academical Village. With the new building, the Hospital, always a public/private enterprise, resolutely turned its face to the community, effectively re-routing the public traffic that had come through the University Grounds along Hospital Drive, a vestige of Manning’s plan.

The new wave of students was accommodated by development of the southwest precinct through three major building efforts—the McCormick Road dormitories, Newcomb Hall, and New Cabell Hall—new residential, social and academic buildings, respectively. Started in 1950, the McCormick Road dormitories were built to accommodate the growing post-war student population, many of whom had been housed in temporary trailers on Copeley Hill. The project required grading the topography of the former golf course to provide a level site for the complex of eight symmetrical L-shaped buildings framing interior courtyards, pedestrian paths, and terracing. The increasingly important parking and vehicular access was pushed to the south, east, and west periphery.

Newcomb Hall, originally envisioned under Darden’s predecessor, John Newcomb, but finished during Darden’s administration, was intended as a student center to accommodate the post-war influx of students, providing an alternative social framework to the fraternities and secret societies that had been in place at the University from the mid-nineteenth century, and had come to dominate student social and residential life.

New Cabell Hall was built to provide more classroom space within close proximity of other academic functions, facilitating student activity and circulation between classes. This addition was seen by some as foreclosing the possibility of the restoration of Jefferson’s open view from the Lawn. Its design, like that of Newcomb
Hall, sited a substantial portion of the building below the Lawn ground plane, moderating its scale so as not to overshadow the ensemble of the Lawn.

The University’s roads continued to emerge as critical planning features. McCormick Road had become a major circulation route as development proceeded at its western end. In the 1930s, Emmet Street was extended south and a bridge was constructed to allow McCormick Road to pass over it. This facilitated further development of West Grounds, particularly in the science precinct, but the extension of Emmet Street divided Central and West Grounds, creating an impact that has been mitigated but never completely resolved. Beginning in the late 1940s, McCormick Road was straightened to bring its western extension into alignment with the Jeffersonian grid.16

The 1950s also saw the expansion of the mechanical, chemical, and civil engineering departments, in part as a result of unprecedented funding and growth during the Cold War. Physics, having outgrown its quarters on the Lawn due to both enrollment pressures and technological change, was also to receive a new building. At this time, modern architecture was seen by many as the proper expression for science departments. The University struggled with questions of style during the planning of the new Physics building in the early 1950s, ultimately settling on a classically-inspired design. By the 1960s however, Gilmer Hall, the new Life Sciences building, would be designed in a Modern style. By the end of the 1950s, a new master plan for the 25-acre area south of McCormick Road indicated the University’s intent to continue the development of this area well into the 1960s in a comprehensive way.17 Urban planning theories that emphasized vehicular circulation and resultant demands for parking began to have more influence on campus development, and these ideas found their way into University planning.

Outside the University, the impact of Brown vs. Board of Education was felt immediately. Forced to accept public
school desegregation, Charlottesville became embroiled in a campaign of massive resistance, led by then Governor Byrd from 1955-58. Several white public schools closed rather than accept the Supreme Court's decision. Vinegar Hill, a neighborhood comprised mostly of African American businesses located just west of downtown Charlottesville, was adjacent to the all-white Lane High School that was under pressure to desegregate. In the 1960s, this neighborhood would be mostly eradicated through Federal and local urban renewal funds, but it was the school desegregation conflict in the 1950s that first targeted this historic neighborhood for destruction.

During this time, the University was also the subject of a number of attempts at desegregation, beginning in 1950 with an application to the Law School, which was denied by the Board of Visitors. Walter Ridley, the first African-American graduate, received a doctorate of education in 1953; the first African-American undergraduate matriculated in 1955. Slow accommodation to change eventually led to 25 African-American students being admitted to the College by 1960. The full force of social change, however, would not arrive at the University until the next decade. An example, women were not formally admitted to the University until 1970.

Under Edgar Shannon’s administration, the planning efforts begun under Darden were sustained. Given increased demands for data, analysis and discussion, the University produced a series of master plans, studies, and reports. The first major report of this new planning phase, the Report of the Long-Range Planning Committee (1961), focused on projecting space usage based on the continued growth of the student body. Underlying this task was the larger question of whether the University would continue to grow with the state’s growth, thereby changing its character markedly, or would cap its enrollment and preserve its culture. The Committee ultimately came down on the side of growth but identified several issues, including parking and vehicular circulation, beyond the traditional problems of classroom and dormitory space that would have to be addressed immediately.

In 1963, the firm of Sasaki, Dawson, Demay Associates, Inc. (SDD), was contracted to produce a master plan for the University’s growth. The SDD master plan suggested that the University capitalize on the existing development and organize growth around five “Teaching Centers,” and a “University Center” in the Newcomb-Alderman area. Conceptually, the Sasaki plan encouraged functional relationships among buildings, creating building density within a “10-minute walking radius” of the University Center, and connecting the Centers through the McCormick Road corridor. The plan argued for a “greater emphasis on the street as a pedestrian way and for a gradual de-emphasis on its general vehicular use.” As planned, vehicular circulation and parking would be pushed to exterior ring roads and eventually be completely removed from the Grounds. SDD also suggested that the Copeley Hill area be set aside for residences, athletics, and fraternities.

By 1973, when SDD released a new master plan, two major tracts of land had been acquired by the University for development: the Duke Property in 1963, adjacent to Copeley Hill, and the Birdwood Estate in 1966. Sometime in the late 1960s, the Law School, Judge Ad-
vocate General’s School, and the Graduate School of Business Administration had been persuaded to abandon their proposed new building sites on West Grounds and relocate to the Duke Property, now re-named North Grounds. In addition, enrollment had grown rapidly, to nearly 13,000, and was expected to reach 16,000 by 1980. Where the emphasis in the 1963 plan had been on creating cohesion and infill, it was now on dealing with the increased growth of enrollment. The new study replaced the plan of the 10-minute radius around functional centers with multiple centers or small “villages” with mixes of recreation, residential and academic activities. The specialized, decentralized University would have three major centers—North Grounds, Central Grounds and Birdwood—linked by a common focus on “the linear street.” The Birdwood center, physically removed from the Grounds at large, would be planned on a residential college model, a mixed-use village that had roots in the original Jeffersonian conception of a self-sufficient village. Ultimately, the Residential College idea for Birdwood would fail due to student resistance and changing financial priorities, but it would be reborn again in the 1980s, and fail again for many of the same reasons. Birdwood was perceived as simply being too far away to be part of regular University life.

In the relocation of the Law, JAG, and Business schools to North Grounds, the University was again part of a national movement among campus planners to manage growth pressures by building satellite campuses away from the core institution. Many universities struggled with problems of connectivity and equal distribution of resources between primary and satellite facilities. Ultimately, a number of campus planning models emerged during this time, several of which are in evidence in the University’s development during Shannon’s tenure. Sasaki’s “activity street” echoed urban planning models that saw the campus as a mall or city in which a mix of people interacted. Often these models were implemented at urban or community colleges. Other campuses in more rural settings, such as UC Santa Cruz, experimented with landscape-based residential college models that sought to maintain an intimate, rather than urban, scale. The debate between planning models—the infill/density model of city planning and the insulation/separation model of the residential college—would continue into the 1980s and 90s.

TOWARDS THE 21ST CENTURY: RE-CONSIDERING THE UNIVERSITY IN CONTEXT
In the last decades of the twentieth century, continuing needs for growth and the legacy of past efforts to meet these needs confronted the University with several other challenges: sustaining the connection between center
and periphery; solidifying the relationship of the University and the surrounding community; and preserving the unity of the University’s core landscape and buildings, an assemblage increasingly honored on a national and global stage. It became clear that the goals of University planning included managing potential conflicts and working to bring together potentially disparate components—and that achieving these goals required attending to the various contexts within which it operates.

The planning of the North Grounds complex followed the national trend toward suburbanized satellite complexes that were oriented towards accommodating parking and vehicular traffic. In addition to the physical distance between North Grounds and other parts of the University, the complex illustrated the challenges the suburban model presented to interaction within its community (in this case, the three schools), to visual focus, and to interconnectivity of pedestrian links and parking. University efforts to create sites with greater inner coherence, mediating between the satellite model and the infill model, included the planning of small specialized colleges within the existing Grounds to serve a small portion of the student population. Monroe Hill College (later Brown College) and Hereford College sought to provide self-sufficient residential and academic “villages” modeled on the original planning and pedagogical concepts behind the Academical Village. The University also pursued a number of additions and infill projects that supported the move toward greater density during this time, notably Bryan Hall and additions to Newcomb Hall, Monroe Hall, and Gilmer Hall.

After an initial plan to move the entire Medical Center to the historic Blue Ridge Sanatorium site failed in the 1980s, the University embarked on the most ambitious funding campaign that had thus far been attempted. The replacement Hospital, budgeted at $189 million, funded through both legislative and private sources and with multiple phases and components, would locate south of Jefferson Park Avenue. As designed, the hospital and related medical school and health sciences buildings built up a dense, urban-scale edge on either side of Jefferson Park Avenue. This interface between the Charlottesville community and University was very different from the student-faculty residential fabric that characterized the Rugby Road and JPA neighborhoods north and south of the Grounds. Other large projects, such as the Stadium expansion, went through a similar process in consideration of relocating them to outlying areas of the Grounds closer to the bypass for access. With the exception of the North Grounds development, the University consistently made the decision to keep the facilities close in through infill when such options arose.

The 1980s saw a number of important changes in the relationship between the University and the City, County, and local citizens. In response to community pressure, the University entered into a dialogue with its neighbors about the nature, extent, and economics of growth. Three important changes came out of this dialogue. In 1986, the Three Party Agreement between Charlottesville, Albemarle County, and the University codified a pact to coordinate planning and growth among the three agencies. Secondly, the Planning and Coordination Council (PACC) was established to provide a forum for these discussions, which continues to the present day.
Lastly, the University agreed to set up a foundation to manage its real estate activities. Unlike the University, as a private entity the UVa Foundation (UVAF) was required to pay taxes on its holdings and was subject to local land use and permitting processes, which satisfied the concerns of the City and County.

Adjacent neighborhoods were also demanding more tools to protect their environs from encroaching development. Escalating conflicts over the Gooch-Dillard and Sprigg Lane dormitories, as well as the new hospital, required new procedures of communication and accommodation. One of the most effective instruments for defending the character of adjacent neighborhoods was survey and nomination for the National Register as historic districts. Although non-binding, historic districts provided a frame for local preservation ordinances; the Board of Architectural Review was established to control and guide development in these districts. The Rugby Road/Venable neighborhood received its first National Register Nomination in 1983 and was quickly followed by the Wertland Street (The Corner) neighborhood. Several other neighborhoods throughout Charlottesville have utilized this tool to record and protect their architectural and landscape resources.

One of the most significant transformations in the University’s planning endeavors was the growing local and national recognition of the Academical Village as a historic site, and an equally significant call for appropriate preservation measures. The Rotunda had been recognized as a National Landmark since 1966, and in 1983, that designation was extended to the Academical Village. In 1983, the position of the Curator of the Academical Village was created, which has since been incorporated into the Office of the Architect. In 1987, the University applied for and received World Heritage Site status for the Academical Village, along with
Monticello. An additional shift in support of Grounds stewardship was the creation of the Office of the Architect (OAU) in 1992, establishing a separate planning function from Facilities Management in recognition of the Board of Visitor’s increased involvement in planning and design issues. While the OAU evolved in its role and responsibilities during the 1990’s, it currently has a robust staff addressing land use and sustainability planning, landscape and architectural design, historic preservation and conservation and facilities planning for the University.

In 1986, the landscape architecture consultants EDAW released the Historic Central Grounds Landscape Study. The study, along with the recent preservation efforts in the adjacent neighborhoods, brought attention to the historic fabric as an ensemble rather than as a series of buildings. The importance of landscape and open space to understanding Jeffersonian planning principles enriched the University’s evolving preservation framework for the Academical Village. The recognition of landscape as an historic element in the University’s built fabric adds another layer to the continuing debate over planning paradigms.

In 1990, the consultant firm of Sasaki Associates (SA) produced a new master plan for the University, following on the two earlier plans prepared in 1965 and 1973. Recognizing that “The Grounds as a whole are arranged as a necklace of academic, residential, and recreational uses, albeit segmented by a web of busy urban arterial streets,” SA recommended infill balanced with careful consideration of open space as the way to unify and clarify the campus, and emphasized returning to the original Jeffersonian axes as a planning framework. These tenets were furthered in a Landscape Master Plan for the campus developed by the consultant firm Ayers Saint Gross in the late 1990s, which emphasized the concept of the “Groundswalk”, a continuous pedestrian spine linking the precincts and uses throughout Grounds and recognizing the importance of the landscape setting (see diagram above).

In a sense, two planning models—vitality through urban density versus secluded residential colleges—have been under discussion for the majority of the University’s life. What planners today refer to as mixed-use develop-
ment remains very close to the original Jeffersonian conception of the Academical Village. In recent years this model has found popularity again at the University. Contemporary planners understand that Jefferson’s mixed-use precept of the Academical Village model cannot be repeated or expanded per se, but rather extended and re-envisioned. The Academical Village itself may not be infinitely scalable, but the idea behind it is. Attempts to expand or extend the Academical Village model have in some cases resulted in sprawl that divides the University’s resources geographically and psychologically. Subsequent attempts to mitigate this trend have led to infill development partially bridging some of the gaps. This has resulted in loosely associated precincts, each with a different personality and all vital to the character of the University. The Grounds Plan provides a framework to guide future development that will knit these precincts together more coherently and use the University’s resources more effectively.

THE SETTING TODAY
The University of Virginia (UVa) is set in the heart of Albemarle County, within the City of Charlottesville. Rising from the James and Rivanna Rivers to the rolling hills and peaks of the Blue Ridge Mountains, this Piedmont area provides a varied landscape of agrarian uses. With a well-educated workforce, and proximity to Richmond and Washington, D.C., the region supports a wealth of cultural and economic activity. UVa provides education, cultural resources and economic stability, while acting as a catalyst for continued growth and progress. With over 2,100 full-time instructional and research faculty and over 15,000 full-time staff, the University is the largest single employer in Charlottesville-Albemarle. More than 20,000 students are enrolled at the University, with a significant influence in the local community.

The land use within the City and County neighborhoods surrounding Grounds, and their relationship to the University, is varied. Commercial uses are present along West Main Street and University Avenue, referred to as the “Corner,” providing restaurants and shops in a pedestrian environment. Residential uses predominate to the west of Emmet Street, south of Jefferson Park Avenue, east of the Corner and along Rugby Road. Many of these bordering neighborhoods are specified as historic districts; the goal of such districts is to preserve the existing character of historic neighborhoods and to maintain property value and neighborhood diversity. Virginia’s cities and counties maintain separate governments with exclusive jurisdiction over their own municipalities, legislation, and economics. As such, the City of Charlottesville with a population of ~50,000, and the surrounding Albemarle County, population ~100,000, each maintain separate zoning ordinances, elected officials, board members and staff. The University Grounds are set within the fabric of these two municipalities, bisected by their border at the southern and western edges of the City (see diagram on page 12). As mentioned earlier in the history, the University joined with the City and County in 1986 to establish the Three-Party Agreement, to coordinate developments within their jurisdictions. University and community development is coordinated on the comprehensive planning level and through neighborhood communication that more typically addresses the development of specific projects. This coordination also applies to larger land use concerns such as parks, recreation and transportation systems for the region at large.
HIS history of growth and planning at the University has shown how the institution evolved, highlighting the decisions that brought it to its present state, and the forces playing upon those decisions. Certain challenges have been recurrent, such as providing for a growing student body, addressing technological and social change, balancing the center and the periphery, and negotiating the interaction of the University and its surrounding community. The responses of past planners to these challenges have themselves become part of the University’s traditions and its physical structure. Today’s planners, attentive to the importance of preserving the University’s cultural, building, and landscape resources and of managing the impact of the University upon its physical and social context, are the beneficiaries and caretakers of this rich legacy.

To provide a framework for today’s planning decisions, the next section of the Plan focuses on the natural and physical systems that comprise the University and its immediate environs. The approach for future growth is established through analysis of the opportunities and constraints presented by the University’s current land use, natural systems, transportation, and infrastructure, with related objectives for the management of each.
Floor Area Ratio

Floor area ratio (FAR) is a measure of the intensity of development density. The FAR value is calculated by dividing the total gross square footage of buildings on a parcel of land by the total surface area of that parcel. While the overall FAR of Grounds is 0.29, there are large variations in density across Grounds, with FAR values exceeding one in the Health System and approaching zero in the wooded areas of North Grounds and Observatory Hill. Ground Area Coverage (GAC) is a complimentary measure, calculated by dividing the total area of building footprints by the total area of a parcel. When planning for new development, appropriate FAR and GAC ranges are specified for the redevelopment zones to ensure that the developed zones possess a similar feel to neighboring areas.
THE University Grounds comprise the lands and systems that support the physical activities of the institution: the organization of land use, natural systems, transportation, and infrastructure. Adhering to its environmental quality and connectivity principles, the Plan ensures that these systems are accounted for and that the proper resources are available and/or protected in the future on Grounds. This section establishes a set of implementation objectives for these systems, in order to guide future development, while preserving and enhancing the order, character, and operation of the campus. Sustainable development, the idea that growth can be designed to conserve resources for future generations, is an overarching concept that pervades all aspects of these objectives.

In planning for the redevelopment of the University Grounds, the Office of the Architect for the University (OAU) determined that a traditional master plan approach of establishing future building sites would not provide the vision needed for UVa. To preserve the character of the University and provide for future growth, this Grounds Plan required a distinctive approach to campus planning, largely based on identifying opportunities and constraints for infill and redevelopment through Geographic Information System (GIS) planning. This approach has determined the carrying capacity for the Grounds and helped to establish the system of redevelopment zones that form the core of the new Plan. An important aspect of this Plan is to keep future growth within the existing developed area of 1,135 acres, making efficient use of existing infrastructure and other resources through compact growth.

The designation of redevelopment zones is based on a strategy of carefully planned infill and redevelopment that curtails outward expansion, preserves historic assets, promotes an intelligible aesthetic order, improves
connectivity, protects natural environments and leverages existing infrastructure resources. These redevelopment zones help to preserve the green space network that provides structure to the Grounds, and highlight opportunities for development close to existing systems and supportive of adjacent programmatic functions. In this way the Grounds Plan provides an opportunity to knit the precincts of the University together with greater clarity, employing defined redevelopment zones and the green space network to bridge the precincts with a more consistent and active pattern of development.

Starting with Jefferson’s Academical Village, the University’s historic pattern of development has been to intersperse housing, academic, and auxiliary uses within each precinct, reinforcing a mixed-use approach to efficient and effective land use. The goal of this Plan is to continue this legacy, ensuring that the three precincts will each contain a mixture of uses that is consistent with our long-term vision of the University. As the University pursues this strategy, opportunities will arise to better connect disparate buildings and redefine underutilized spaces. Strategic infill development will increase the unity of the Grounds as a whole, helping to develop more fluid transitions between distinct geographic areas and to mediate differences in building scales. While infill development is central to the mission of this plan, this approach includes continuing the important practice of including of green space for a variety of uses throughout the Grounds. Views and vistas must also be retained (or returned where possible) across the Grounds, providing symbolic reference points, approach sequences, and scenic vistas of the surrounding landscape, such as the original vista of the Lawn established by Jefferson and now being re-established with the South Lawn project.
In addition to creating the 1998 UVa Landscape Master Plan, which established the larger precepts built upon in this Plan, the University, through the OAU, Environmental Health and Safety, and Facilities Management, has previously developed land and facility-related plans/programs, design guidelines, and other documents to establish best management practices, and reduce the negative impact of future growth (see resources). Land-use stewardship at the University is based on prudent integration of the designated planning principles, and this plan goes beyond the established guidelines to provide a coherent, overarching framework for future development.

**LAND USE**

Land Use refers to the activity that occurs at a specific location, building, or other facility. The University and the adjacent City and County areas together have a pattern of mixed land use, including academic and administrative buildings, offices, commercial uses and residences.

This pattern of complementary development provides mutual benefits for the University and the adjacent community alike. Within the Grounds, the mixed-use pattern established by the Academical Village continues to some degree, providing a combination of residential, academic, administrative, cultural and social spaces, just as Jefferson intended. The three primary precincts, Central, West and North Grounds, all support a diversity of uses in addition to primary academic and health system-related functions.

Green space and landscape on Grounds take many forms, including tree-lined fields and pathways, terraced amphitheaters, quadrangles, and courtyards. They provide an equal diversity of uses, ranging from passive recreation to athletics for informal and formal assembly. These open spaces and the buildings that surround them in the core of Central Grounds create higher quality outdoor spaces that are more likely to be used than
those on the periphery of Grounds. This pattern reflects the smaller scale of buildings and green spaces in the core, as well as the greater mix of historic and modern buildings that relate to one another through a variety of courtyards and pathways. Towards the periphery of Grounds, buildings tend to be newer, larger and more autonomously sited, and the functions of some of these buildings, necessitate large amounts of parking and other auxiliary uses. This creates spaces that are often more difficult to use in a flexible fashion and less enjoyable to occupy.

Most buildings in the Central Grounds are oriented to the orthogonal axes established by the Academical Village, while those in West and North Grounds are oriented to topography or along curving roads, a few of which predate the Jeffersonian grid. Several building sites actually employ both organizational schemes. At points along the border between Grounds and neighboring Charlottesville and Albemarle, gateways into the University community represent important transitions, and require appropriately scaled entrances. In other cases, the transition between the University and its adjacent neighborhoods is more subtle and traditionally treated with low walls constructed of brick and/or stone.

**Land Use Objectives**

Integrated, multi-use buildings with a balance of green space are important for fostering the social and interdepartmental interactions that make the University a dynamic, innovative place to live, work and learn. A strategy of infill and redevelopment on Grounds affords opportunities to develop facilities that cater to the specific needs of interrelated disciplines and their related support facilities. The continued development of multifunctional academic and research spaces within the context of existing departmental clusters will promote collaboration, and through it, new discoveries as part of
the University’s mission for the future. Compact growth through infill and redevelopment allows the University community to live, work, and recreate without needing to travel significant distances, making transit use, walking and bicycling practical. Infill also reduces the demand to build new projects on currently wooded riparian wetlands or otherwise undeveloped lands, helping to conserve habitat and wildlife. Through the use of appropriate scale and thoughtful siting of new facilities, the following objectives can be accomplished.

- Foster inter-disciplinary academic relationships through development of integrated, mixed-use facilities that leverage existing University resources. Advance the potential for mixed-use redevelopment on portions of the Grounds where concentrations of exclusive uses are clustered.
- Establish a central green space for each precinct, providing a community center similar to the Lawn.
• Define a system of specific linkages in circulation between adjacent buildings and green spaces, establishing public and semi-private spaces, as appropriate for each project and its surrounding uses.

• Consider the design and function of historic buildings, landscapes, and their adjacent sites, including any significant features to be preserved in adaptive reuse/redevelopment projects (see page 8).

• Enrich the arrival-and-entry sequence and more prominent edges of the Grounds, helping to clarify the University presence and image.

• Intensify density and consider opportunities for public uses at major entry points where the University property intersects with City and County lands.

• Protect wooded, riparian or otherwise undeveloped lands, and provide access to these areas for educational and recreational uses.

• Establish, protect and enhance signature views and vistas across and off Grounds.

NATURAL SYSTEMS
Natural systems include the vegetation, waterways, and forested areas that cover and flow through the Grounds. The topography, trees and streams that run across the University’s borders are simply smaller sections of much larger natural systems, including mountains, forests, wetlands and rivers. These systems provide wildlife habitat; serve critical functions such as water-air filtration and groundwater recharging; and give the Piedmont Plateau its distinctive natural character and appeal. A long history of settlement and land cultivation in the region has resulted in a fragmented natural landscape, bisected by roads and railway lines, with agriculture, buildings, parking and other uses. This fragmentation and the recent surge in suburban development in the region has led to the reduction of many wildlife species, and has also impacted the quality of streams and river habitat. Current projects on Grounds have begun to reverse this trend by preserving stands of mature trees.
and restoring streams and natural vegetation as part of their implementation.

**Natural Systems Objectives**

The University is committed to planning and growth management that conserves and restores healthful, functional natural systems, and leverages restoration to create places for healthy human environs and wildlife habitat. To this end, the University has developed a targeted conservation strategy for vital natural systems within and beyond its boundaries, which evaluates University and University Foundation (UVAF) lands to assess their conservation values (see Resources). This analysis determines the relative significance of habitat quality and biodiversity, establishing lands with higher values for protection and restoration, and lands with lower values for redevelopment. It is important to recognize that redevelopment of already disturbed lands such as parking lots and underutilized buildings poses the least
threat to habitat quality and biodiversity, and is the best means for conservation.

- Focus building projects on infill and redevelopment of already disturbed and underutilized land within the 1,135 acres of the developed Grounds.
- Consult conservation values assessment when siting projects to avoid disruption of highly valuable natural systems. Annually update conservation values assessment to review appropriate use of land and protection of natural resources.
- Seek opportunities to restore and bridge gaps within natural systems as part of building, infrastructure, and green space project implementation.
- Continue implementation of the stormwater plan, further developing opportunities to daylight streams in order to improve water quality while creating additional habitat.

TRANSPORTATION
Transportation on Grounds is a multi-modal circulation network for pedestrians, bicycles, transit, vehicles and parking. For bicycles and pedestrians, circulation within Grounds occurs along roadways designed primarily for vehicular use and a complex web of pathways. In addition to providing access to various destinations throughout the University, the roads, along with two active rail lines, also bisect and separate parts of the Grounds. Adequate bike lanes, sidewalks and crosswalks are found along much of the road network, and in some cases, overpasses provide pedestrian and bicycle access across busy streets. However, in many locations the bicycle and pedestrian network is incomplete, presenting safety issues and other challenges, particularly for the elderly and those with disabilities.

The University has comprehensive transit service provided by University Transit Service (UTS) and Charlottes-
ville Transit Service (CTS), offering multiple bus routes to and through the Grounds. In addition to moving people between residential and academic areas, UTS provides service to and from several University parking garages, allowing commuters to leave their cars at the periphery of Grounds and travel to their final destination by transit. UTS also offers on-demand service for passengers with disabilities, along all of the routes. CTS provides transportation services to the University, City and parts of the County, including a free bus-trolley between the University and Charlottesville’s downtown shopping and business district. The two transit services share a reciprocal program of offering fare-free service to the users of each transit entity.

Most of the roadways that serve as major access corridors to the University Grounds are historical, and provide two-lane cross-sections and minimal turn-lane facilities. Such characteristics are in keeping with the historic context of the University and Charlottesville area. Due to growth of the University and the Charlottesville-Albemarle region, these roadways experience congestion compounded by public events on Grounds, including concerts and athletic events. Parking on Grounds includes surface and structured, with the majority of spaces located at garages near the periphery of Grounds, requiring a transfer to transit or a five to ten minute walk to reach destinations. While parking supply in the core areas of Grounds is heavily used, the overall parking supply accommodates all needs. Many parking areas serve multiple functions at different times of day or night, making the available parking supply more efficient. With the exception of meters and attended lots, all University parking requires the use of a paid permit.

**Transportation Objectives**
The strategy of mixed-use and infill development on Grounds will increase the demand for circulation
throughout the University. Improved multi-modal transportation systems are needed to offset the demand for additional parking and road enlargement, preserving historic elements and maximizing land use efficiency. To this end, the University has developed a Transportation Demand Management (TDM) plan in support of more efficient use of transportation resources. The strategies within the TDM plan seek to improve alternative transportation options by providing incentives for using such modes, and by improving the quality and efficiency of bicycle, pedestrian and transit network operation. These strategies are being implemented concurrently with City and County transportation goals. UVa has also established the Grounds Improvement Fund, which assess capital projects at a 1.5% rate of the construction cost to provide funding for pedestrian and bicycle amenities throughout Grounds.

- Implement programs established by the Transportation Demand Management plan with a phased approach to support multi-modal circulation to and around Grounds.
- Establish an implementation plan using resources from building projects and the Grounds Improvement Fund (GIF) to enhance bicycle and pedestrian facilities promoting safety on Grounds and in the adjacent City and County areas.
- Ensure that redevelopment and new building projects incorporate pedestrian and bicycle pathways linking to existing buildings and green spaces on Grounds.
- Enhance intersections and streetscapes throughout Grounds to provide safe, comfortable and attractive places for multi-modal use.
- Intensify land use at existing pedestrian and bicycle overpasses for improved circulation efficiency.
- Refine road network to improve efficiency and access for UTS and service vehicles.
Maintain adequate vehicular access and parking capacity linked to multi-modal connections for users on Grounds.

INFRASTRUCTURE

Infrastructure systems provide energy and water, and manage the flow of sanitary sewer / stormwater for the University. The University’s infrastructure systems—electrical, heating, cooling plants and utility corridors, as well as waste, recycling, stormwater management, and metering and information systems—represent both the key to infill development on Grounds and its limit. Efficient, reliable, and innovative management of these systems is crucial to the continued expansion and improvement of the University’s academic, research, residential and athletic facilities.

Infrastructure Objectives

UVA’s Energy and Utilities Department of Facilities Management provides efficient and reliable utilities and recycling to facilities in support of the University. This is accomplished with appreciation for renewable and recoverable resources, dedication to environmental conservation, and pride in the historical and cultural legacy of the Grounds. The Department is responsible for minimizing energy and water usage through its management program, which considers all opportunities for achieving energy savings. These opportunities include consolidation of utility plants, design and implementation of energy saving operations, and commissioning and scheduled maintenance procedures. Natural systems, specifically streams and related hydrological networks within the Grounds, act as green infrastructure, helping to perform critical stormwater management functions. Based on a “Water Balance” model, a strategic plan has been created for the University to help minimize net stormwater impacts and demonstrate the value of alternative management techniques involving natural system restoration for developed areas that sustain large amounts of stormwater run-off. A robust recycling program reduces the University’s solid waste by nearly 41%.

Facilitate infill development on Grounds through continued consolidation of utility and energy plants into regional-scale facilities, providing more efficient distribution.

Achieve a reduced or zero growth rate in annual heating energy, electric energy, central plant chilled water and total annual water use.

Decrease the University’s ‘carbon footprint’ as rapidly as possible given the identified technical and financial constraints.

Meet or exceed state mandates for recycling disposable materials and further reduce the amount of disposable materials transported to a landfill.

Consider opportunities to integrate compatible utility and non-utility projects and uses where appropriate, including covering utility corridors with crushed gravel for use as pedestrian and bicycle paths, day-lighting underground streams, and stabilizing stream banks as part of utilities maintenance adjacent to underground or impaired natural waterways.

Strive for a stormwater management system that replicates the natural water balance of the region, reducing run-off and flooding, maximizing groundwater infiltration, and improving water quality for the region.

Coordinate with the City, County and regional utility authorities to ensure operational efficiency and seek opportunities for further development of sustainable approaches to infrastructure development.

Investigate alternate energy sources and use of grey water systems.

By pursuing these objectives embodying the principles of environmental quality and connectivity—promoting interaction within the University community, multiple uses of green spaces and buildings, ease and safety of circulation, a pleasing spatial order, mindful management of resources and impact—the Grounds Plan assures that all the University’s systems can accommodate growth compatible with sustainability.

Section 3 of the Plan, drawing on the Grounds Plan program model developed by UVA, provides an estimate of growth for the next twenty years with the use of redevelopment zones. This approach shows in concrete ways how redevelopment within and among the University’s main precincts—Central, West, and North Grounds—can meet projected needs and heighten opportunities for multi-disciplinary collaboration, increasing the integration and coherence of the University’s academic, spatial, and cultural environment.
Planning Workshops

Beginning in 2004, the Office of the Architect conducted a series of seven collaborative workshops that brought stakeholders together to share their experiences and ideas. Each two-day planning workshop focused on a defined area of Grounds and began with presentations from the stakeholders on their concerns and recommendations. Afterwards, Office of the Architect staff and nationally-recognized planning and architecture consultants analyzed the information presented and worked to prepare several conceptual plan alternatives to address stakeholders’ concerns. At the end of the second day the entire group came together and the alternatives were presented for feedback. A follow-up session was held to present the final workshop report to stakeholders, and this information served as a basis for the Grounds Plan. See the resources section for more information about the workshop reports.
THE University is committed to promoting teaching, learning, research and artistic expression in a community that values talent and creativity of mind. To compete in a globally interconnected society, the boundaries between classrooms, libraries, laboratories, studios, and the world beyond should support multi-disciplinary collaboration amongst faculty members, graduate students, undergraduates and staff. To accommodate these institutional goals within the physical environs of the Grounds, a planning program model was developed to address needed growth in terms of population, academics, research, housing, athletics/recreation, and green space at the University.

UNIVERSITY GROWTH
Most major American universities have experienced significant growth over the past five decades. In 1950, just under 8 percent of the population had attended one year of college or more, while nearly 45 percent of adults achieved the same level of educational attainment in 2000. This growth is primarily due to the increasing demand for college, graduate or higher-level degrees in today’s society. In part, this growth is also attributable to certain trends in higher education, including the enrollment of women, minorities, and part-time and returning students. The physical growth of university campuses is also a result of changing needs, technological advances, and the expansion of multi-disciplinary academics and research. As these trends bear physical consequences for the University, it is important to develop a program or framework to gauge what needs the projected population will have. For the Grounds Plan, the program starts with projections for the growth of the faculty and student populations and then extrapolates those figures to determine the necessary and appropriate allocation of future development square footage.
within the University. This includes space for teaching, research, offices, student services, libraries and classrooms. Auxiliary space needs, such as housing, business operations, athletics and parking are calculated subsequently as part of the programming model. An important aspect of this programming model developed for UVa is that it is interactive, and can be updated at any time to test or reflect adjustments necessary for any academic institution in its planning process.

The criteria for the program model are rooted firmly within the University’s academic mission. The 2007 President’s Commission on the Future of the University (COFU), accommodated in this Plan, provides a vision for the institution that leverages and builds upon a base of the University’s strengths and values. Thomas Jefferson intended for the University of Virginia to be global in scope and character. Today that objective is accomplished through a powerful and rewarding undergraduate experience that affords direct connections with superior graduate and professional schools. The experience extends to all members of the University community through meaningful interaction amongst members who strive together towards the collaborative pursuit of knowledge. Because of their broad and inter-disciplinary education, these global citizens are poised to become effective, ethical, and globally literate leaders in an increasingly interconnected world. As outlined in the Virginia 2020 report from 2004, a host of new building projects are underway at the University (see Section 4 timeline). These projects, like the framework outlined in COFU, manifest the University’s academic mission. That mission, to extend the legacy of Jefferson’s academic principles into the contemporary realm, is also made physical through the principles of this Plan, which seek to foster multi-disciplinary academic connectedness within the University, region, and world through a carefully planned and implemented physical environment.

The program model includes projects in the 2008 to 2014 Capital Plan, which represent known future development, and are categorized as academic/research/library facilities, administration and support facilities, housing, athletics and recreation, historic preservation, and infrastructure. The program model is based on four planning horizons: 1995, 2005, 2015, and 2025 - two past horizons to provide context for the planning, and two future horizons. Two growth scenarios are explored across the planning horizons, defined as Steady State and Research Centric. Steady State represents a relatively modest rate of student population growth - the direction UVa has committed to with the State of Virginia - and maintains the current undergraduate to graduate student ratio of 2.75 to 1. The Research Centric scenario addresses an increase in graduate enrollment, reflecting an adjusted undergraduate to graduate student ratio of nearly 1 to 2, in the case that UVa should be directed to develop more robust research programs. As stated previously, one of the great benefits of this program model is that it can be updated on a yearly basis to support flexibility in future University planning as adjustments are required.

The faculty and student population projections, and the related facility needs, establish the “demand” side of an equation that must be balanced by the “supply” of redevelop-able land on Grounds. This supply is determined by deducting built and green space on Grounds, combined with examining opportunities and constraints associated with the development to yield a “carrying capacity” (see Redevelopment Zones in Introduction). Opportunities refer to the elements that make a site more appropriate for development, including existing utility service and capacity,
location along existing travel routes, and adjacent land uses that relate to the proposed development’s uses. Constraints are those conditions that make a site less appropriate for development, including high-value natural systems or steep topography, historic or cultural resources, a lack of utility services or capacity, or a location not served by existing travel or transit routes. Rigorous program and physical capacity analysis show that the current developed Grounds area accommodates both growth scenarios, projected through 2025. This conclusion is based on a strategy of infill and redevelopment for future University buildings, balancing increased density within certain Grounds precincts and the preservation of natural and green spaces within others.

By the year 2005, the University comprised academic and related facilities totaling just over 13 million gross square feet (GSF). To understand the relative meaning of this GSF, it is useful to reference comparable peer institutions. Figure 1 depicts the comparable size in GSF of 28 major American universities, indicating that the University of Virginia is a medium-sized institution. In addition to total size, a second important dimension of building development is density, which creates the perception of urban, suburban or rural character. The conventional planning measure of development density is Floor Area Ratio (FAR), which is calculated by dividing building GSF by land area SF. Figure 2 shows the FAR for the same set of 28 institutions. In 2003, the University of Virginia’s 13 million GSF occupied approximately 1,100 acres of Grounds, generating an FAR of 0.27. The University’s overall density is in the lower third of the sample peer group, reflecting the area’s rural heritage and the University’s pattern of clustering development to preserve green space and adjacent natural areas. The University can continue to follow a strategy of infill development for the foreseeable future (+/- 20 years) without jeopardizing the character and qualities of the Grounds. With careful planning and adherence to design guidelines provided in this and related planning documents, infill development can actually help create a more cohesive sequence of buildings and green spaces throughout the Grounds, in keeping with the University’s historic character.

PRECINCTS
The University Grounds are comprised of three planning precincts, the Central, West and North Grounds.
The boundaries of these precincts are established by geographic features on Grounds rather than academic or use distinction. This Plan seeks to establish a logical course for future development within these precincts, with an emphasis on configuring redevelopment to better serve users, provide increased capacity, and improve connectivity within the Grounds. Critical to this process is a detailed understanding of the academic and physical needs present within these precincts. To that end, the Office of the Architect for the University conducted a series of collaborative workshops between 2004 and 2006, convening members of the academic, administrative and operational units associated with the Central, West and North Grounds. The seven workshops served as a forum to establish the needs of each user group, and to develop conceptual plans aimed at meeting those needs (see appendix for workshop reports).

CENTRAL GROUNDS

Central Grounds includes the historic Academical Village and the majority of libraries and student services, along with academic, residential, administrative and health system facilities. This original precinct is the most heavily developed of the three, and the provision of a pedestrian linkage with the South Lawn project will provide access to new development south of Jefferson Park Avenue. Two planning workshops were held to assess the needs for growth in this diverse area. The Brandon Avenue and Monroe Lane Workshop integrated the concepts of previous studies into a coherent, consistent vision in support of additional growth south of Jefferson Park Avenue. The second planning workshop, Health System/West Main Street Workshop, engaged the City of Charlottesville and the Health System to understand their vision for redevelopment along the West Main Street corridor and establish a continuing and open dialogue between the University and the City for this area. Key issues that arose during the workshops included the need for additional space in existing and new facilities; better adjacency between research and patient care; and increased connectivity between existing facilities. Addressing the Carr’s Hill area of this precinct, the current strategy of coordinated, multi-functional infill projects to achieve a unified Arts Grounds is planned to continue.

Current infill projects combined with the new Culbreth Road Garage and a planned addition to the Drama building, set the stage for a primary green space on the north side of Carr’s Hill to be fully realized.

Central Grounds hosts an array of green spaces, ranging from the iconic civic spaces of the Lawn and libraries’ quadrangle to the more scenic Pavilion gardens and plantation. While these green spaces are key elements of this precinct and the Grounds-at-large, the area south of Jefferson Park Avenue is in need of additional greens. Three new landscape spaces within the South Lawn project will provide key spaces and connections for this precinct; the terrace crossing - an important pedestrian connection across Jefferson Park Avenue, the central garden courtyard, and the Foster Site memorial park. Additional landscape spaces are also planned for new facilities in the Health System.
Adequate capacity for new academic and health system facilities is demonstrated through infill of underutilized parcels and replacement of existing structures with higher density buildings. Redevelopment opportunities include the new Clinical Cancer Center, established by relocating the current parking, a medical office building along West Main Street, redevelopment of the current Virginia Ambulatory Surgery Center (VASC) site, and other locations along Brandon Avenue connecting to the South Lawn project.

Housing in Central Grounds is provided along the Lawn, at Brown College, Bice House, Lambeth Field Apartments, International Residential College and the Asian, French and Spanish Houses. Central Grounds is well supported by adjacent community housing in the Jefferson Park Avenue area and at the Corner, the adjacent commercial district.

The circulation system throughout Central Grounds offers a multitude of facilities for pedestrians, bicycles and the University transit, but has limited parking and vehicular access. This presents challenges for the Health System in particular, since providing good access for staff, patients and visitors to the hospital and its related facilities is vital. Internally, the Health System facilities are well served by a connective system of enclosed walkways called “the link”, which will continue...
to be extended and updated with the development of new facilities. Externally, planning for new development provides additional streetscapes, and the area is well served by both UTS and CTS bus systems. The South Lawn terrace will provide an important pedestrian connection across Jefferson Park Avenue.

WEST GROUNDS

West Grounds was the second major area of development for the UVa campus beyond Central Grounds, and houses a large percentage of University research facilities, student residences, and athletic recreation uses. Two planning workshops were held to gather an understanding of the needs and opportunities in the West Grounds. The 2004 Midmont to Piedmont Workshop focused primarily on housing, developing a framework for the replacement of Alderman Road student residence halls and considering underutilized parcels in the Midmont and Piedmont faculty and staff housing areas for redevelopment. The 2005 Science and Engineering Workshop provided opportunities for academic building infill emphasizing the value of multi-disciplinary academic uses and green community spaces.

As specified by the objectives in Section 2, establishing a central green space for the West Grounds would provide a primary green space for this precinct and link the existing high quality green spaces in this area. The preferred location for this primary space is the grass ellipse to the south of Observatory Hill dining hall extending into the Gilmer Gulch. The ellipse, created as part of the development of the Observatory Hill dining hall in 2006, was intended to serve as a central green space for nearby residents. By linking and reconfiguring this new space with others in West Grounds, it is possible to develop a green space sequence that will define the entire West Grounds precinct. The diverse mix of adjacent building uses, including housing, dining, academic, support functions and recreation, would benefit from a central green with outdoor amenities designed to support use by these functions.

Adequate capacity for new and residential academic facilities can be provided through infill development of underutilized parcels and replacement of existing structures with higher density buildings. Redevelopment opportunities include the reconfiguration of the Whitehead Road corridor and relocation of parking to a new structure(s) south of the Stadium to make additional building sites available, and replacement uses within the existing Facilities Management site west of Alderman Road. Within these redevelopment zones, a series of linked pedestrian
walkways will improve circulation and form stronger physical connections with adjacent areas. Higher density is the primary strategy for meeting the increased need for student, faculty and staff housing in West Grounds. Redevelopment of the Alderman Road residence halls allows for increased capacity on this site and provides an opportunity to create additional space for academic and student-life use by including these spaces in new residence hall designs. A planned redevelopment with increased density of the Piedmont faculty housing area can provide additional units for faculty housing.

Improved circulation in the western portion of this precinct will provide UTS access to the Fontaine Research Park and shorten the perceived distance from residence areas to Central Grounds. The new road connecting through Hereford Residential College provides improved bus service to this previously underserved area. Extending Stadium Road to Fontaine Avenue as a managed street for UTS, pedestrians and bicycles will improve the accessibility to the Fontaine Research Park and provide an important transit link. The redevelopment of the Alderman Road residence halls presents an opportunity to organize them around a pedestrian and bicycle path linking the Observatory Hill and Runk dining halls. This path is vehicle free and has little change in elevation, providing a quick, comfortable connection between residence areas and student activity centers.
North Grounds is the most recent precinct developed on Grounds, with the relocation of the Law School, Judge Advocate General's School, and the Graduate School of Business Administration in the early 1970s. While these Graduate Schools benefit from their expanded facilities, the suburban scale of this precinct results in a sense of separation from the Central and West Grounds. North Grounds also accommodates student housing facilities, athletic/recreation fields, and the John Paul Jones Arena. Two planning workshops addressed this area. The 2004 North Grounds Workshop identified upcoming projects and potential land use issues, examined needed infrastructure improvements, and explored differing perspectives on connectivity within the area. Emerging from the workshop was a common desire to better integrate the Law and Darden graduate facilities into the larger University community, through a formal gateway or approach sequence into North Grounds. The 2004 Arts Grounds to North Grounds Workshop focused on the areas linking North Grounds with Central Grounds. The goals for the workshop were to promote better connections between multiple destinations, including Carr's Hill, Fine Arts, Lambeth Field and Housing, and North Grounds. Additional goals included conceptualizing a signature entry experience into Grounds, featuring a sequence of building and landscape elements designed to clarify the University's boundaries and reinforce its identity. As part of the planned improvement of the arts and cultural facilities, the Arts Gateway concept was developed and sited at its planned location at the intersection of Ivy Road and Emmet Street.

A large variety of green spaces contribute to the suburban character of the North Grounds precinct. High-quality green spaces are located in the stream valley at the north end of the precinct, at the Park, in areas around the Law and Darden Schools, in parts of the Copeley Hill Housing Area, and at the Miller Center. These spaces range from forested natural areas with strong trail systems to busy intramural playing fields. Much of the remaining green space in North Grounds is currently use-specific, such as the varsity athletics practice and competition fields and forested remnants near the John Paul Jones Arena and Copeley Family Housing. As with West Grounds, a central green space capable of defining and organizing North Grounds is essential, and this green space is planned as part of the major connective element between North and Central Grounds, along the new entrance roadway and through the Arts Gateway.

The redevelopment area west of the Arts Gateway project and portions of the athletics area offers the largest tract of land for new academic development on Grounds. This area is largely undeveloped, features desirable topography and utility opportunities, and connects to the new primary access road into Grounds. University Hall, the former basketball arena in the center of this area, is a candidate for adaptive reuse. Development of additional parking structures in proximity to the John Paul Jones Arena will allow for shared commuter and event use, making efficient use of the land. The area will continue to accommodate athletic fields, with competition fields clustered to the west of Copeley Road and practice fields east of University Hall. The proposed Field House is planned for the practice cluster in order to be accessible to multiple sports programs. On the north-west corner of Emmet Street and Ivy Road, planning and design of the new Arts Gateway is under-
way and will include an expanded art museum, café, university forum, a site for a future concert hall, and a future residential college and/or other student housing. As professional school facilities in North Grounds continue to grow, new buildings can be accommodated adjacent to existing facilities. This infill development should seek to form connections between the schools and provide opportunities to create green activity spaces to be shared among the North Grounds community.

The Lambeth Field upper-class student housing is a promising location for coordinated redevelopment to provide increased density and improve connections between the Arts Grounds, athletics and recreation and Central Grounds. Increased density can be achieved by replacing the 250-space parking lot with new housing facilities, and relocating the parking to an adjacent structured facility. The Copeley Hill housing area, supporting a mix of undergraduates, graduates and student families, is low density and provides an opportunity for infill. The fifty acre site has an FAR of .15, and the age of these facilities is an additional concern. Infill or redevelopment at a higher density is appropriate, and future development should seek to protect and celebrate the hilly, wooded character of the site.

A major goal of this Grounds Plan, and other recent campus plans, is to improve the linkage between North Grounds and other areas of the University. The completion of Leonard Sandridge Road affords a unique opportunity to alter the entrance sequence into the University and actively place North Grounds into this sequence. Concurrent with the realization of this new entrance as a primary University gateway will be improvements to bicycle and pedestrian infrastructure, transit service, and enhanced connections to North Grounds. Improvements to the Emmet-Ivy intersection are also planned to support improved pedestrian and bicycle use, while further emphasizing the linkage between Central and North Grounds.

These three precincts are all located within the 1,135 acres of the core Grounds where all future development for UVa is planned to occur. Like many other public institutions, the University also has additional lands and facilities in the form of research parks, satellite campuses and field stations. A summary of these additional entities is provided below, as the use and planning for these facilities was addressed in the development of the Grounds Plan.

**UNIVERSITY OF VIRGINIA FOUNDATION**

Based on the experience of a number of colleges and universities which have affiliated foundations performing real estate activities, the University of Virginia Foundation (UVAF) was incorporated in 1986. The primary function and responsibility of the Foundation is acquiring, developing, and managing real property, or interests in real property and related assets, for the benefit of the University. To this end, prospective land acquisitions are undertaken by the Foundation to accommodate future academic, institutional and housing requirements.
and to promote the growth of the University’s research and related activities. The Foundation also undertakes the acquisition and development of property adjacent to the University Grounds to insure that development is in harmony and compatible with the University’s academic setting and its stature as an historic and cultural landmark.

The Foundation acquires real estate in a variety of ways - by purchase, by transfer from the University and other grantors affiliated with the University, and through gifts to it from outside donors. The Foundation provides administrative and investment services to other University-related foundations, and is the parent corporation to the University of Virginia Research Parks, Boar’s Head Inn, Birdwood Golf Course, Morven Farms and the Cavalier Inn.

COLLEGE AT WISE
The University of Virginia’s College at Wise, formerly Clinch Valley College, is the sole branch of the University of Virginia. Founded by UVa in 1954 as a two-year junior college, the school began to grant four-year baccalaureate degrees in 1970. Situated on 367 acres in Wise County, Virginia, UVa-Wise is a great example of the leadership provided by the Southwest Virginia region and its Appalachian heritage. Before the College
was created, there were no public colleges in this portion of Virginia, and the College continues to honor its commitment of service to Southwest Virginia. The College offers 25 majors and an enrollment of over 2,000 students. UVa-Wise is undergoing rapid growth, with several new buildings and campus beautification projects underway. The College Board has expressed the desire to see the college grow to between 3,000 and 3,500 students by 2015. The Campus Plan for the College was developed by the Office of the Architect and approved by the Board of Visitors in 2006.

**Field Stations**

UVa is fortunate to have four field stations within Virginia, providing a diverse array of research, public service opportunities and environs. A summary of the stations, their focus and facilities is provided for reference.

Blandy Experimental Farm (BEF) is a 700-acre University of Virginia research facility situated in the northern Shenandoah Valley, west of Washington, D.C., and home of the State Arboretum of Virginia. Founded in 1926, this Environmental Sciences Department field station's mission is to increase understanding of the natural environment through education and research on plants, plant biology, ecology and evolution. Blandy’s research program, arboretum, and K-12 programs run year-round, and the facility is particularly important as an educational outreach center for northern Virginia. The arboretum’s collections and exhibits include more than half the world’s pine species, the Boxwood Memorial Garden, a spectacular grove of more than 300 ginkgo trees, an herb garden featuring culinary, medicinal and ornamental herbs, and the Virginia Native Plant Trail.

The Mountain Lake Biological Station (MLBS) is a field research and teaching facility located in the deciduous hardwood forest of the Appalachian Mountains in southwestern Virginia. Founded in 1929, it is the field station of the Biology Department and provides a diverse array of natural environments, local educational outreach opportunities and two modern laboratories. The 642-acre site includes residences used by researchers and students of biology and environmental science for research and course opportunities throughout the spring,
summer and fall seasons. A full-service dining hall operates in support of the station during the summer.

The Fan Mountain Observatory, 1.5 miles south of Charlottesville, was established in the mid-1960s as a new, dark site for the Department of Astronomy, and is also affiliated with Norfolk State University. The 273-acre Observatory site was used extensively for research up until the late 1980s. In recent years, extensive hardware upgrades and instrumentation efforts have transformed the observatory into a modern research facility, currently capable of optical and infrared imaging and spectroscopy.

The Anheuser-Busch Coastal Research Center of the University of Virginia (ABCRC) is located in southeast Virginia along the Eastern Shore. Founded in 1987, it is a field station of the Environmental Sciences Department, providing laboratory and residential facilities to researchers from various institutions and agencies. Field station personnel maintain the site, conduct collaborative research with other PI’s, collect data from meteorological stations, tide gauges, well transects and water level recorders, and host a fleet of four boats to provide logistics to the VCR barrier islands, mainland creeks and seaside ports. The station runs year-round and also hosts a local outreach program.
Through the program model, and incorporating the findings of collaborative workshops, the Grounds Plan identifies the development required by future academic, housing and recreational needs and the opportunities such development provides. These opportunities create multi-use spaces and improve connectivity and spatial coherence through adding green space, reconfiguring roads, linking walkways, and designing a stronger entry experience to the University. In this way, the Grounds Plan provides for an increasingly sustainable University environment, one that will fulfill and extend Jefferson’s vision through all the University’s precincts.

Although the centrality of the principle of sustainable growth distinguishes this Grounds Plan from recent campus plans, the implementation of several of the projects set forth in these earlier plans offers excellent models of sustainably managed growth, benefiting the University and its surrounding community while serving specific programmatic needs. The case studies in section 4 demonstrate the progress that has been achieved and methods of proven success that can be employed in implementing this Plan’s objectives.
Current and Future Capital Projects

In the last five years the University has completed over $480 million in new construction, additions and renovations; an additional $545 million of construction is currently underway and a further $782 million in new building and infrastructure projects are currently in the planning and design phase. The figure on this page displays major projects recently completed, currently under construction or being planned. The sheer size and pace of the University’s expansion highlights both the need for a comprehensive planning document and the opportunity to improve the Grounds through thoughtful in-fill construction in the designated redevelopment zones.

Project Status

- Under Construction or Recently Completed
- In Design, Planning or 2008-2010 Capital Plan
- In 2010-2012 Capital Plan
- In 2012-2014 Capital Plan
- Redevelopment Zones

In the last five years the University has completed over $480 million in new construction, additions and renovations; an additional $545 million of construction is currently underway and a further $782 million in new building and infrastructure projects are currently in the planning and design phase. The figure on this page displays major projects recently completed, currently under construction or being planned. The sheer size and pace of the University’s expansion highlights both the need for a comprehensive planning document and the opportunity to improve the Grounds through thoughtful in-fill construction in the designated redevelopment zones.
The 1990 Facilities Master Plan for the University of Virginia set forth several themes, most of which pertained to the nature of physical development on the Grounds. Two primary notions were that University holdings east of the 29/250 Bypass would be sufficient to accommodate the expected growth needs of the institution, and that Observatory Hill should be preserved. Given that the plan called for development to remain east of the 250 Bypass, it did emphasize the value of compact growth and infill, but did not utilize integrated, multi-disciplinary facilities as a way to encourage academic connections. The recommendation to protect Observatory Hill set the foundation for that effort, but lacked the scientific analysis provided with the current Grounds Plan’s conservation value study, which further reinforces the need to protect both Observatory Hill and the remaining North Grounds forest.

The 1990 Plan called for unification of the disparate parts of Grounds, strengthening the axial order of formal green spaces, and creating better bicycle and pedestrian linkages. It also proposed development of additional housing outside of existing residence areas. The Grounds Plan reiterates several of those goals, proposing greater unity and connectivity throughout Grounds to establish fitting linkages between buildings, green spaces, and precincts and emphasizing a clear sense of order. The concurrent development of a Transportation Demand Management (TDM) plan with the Grounds Plan ensures that bicycle, pedestrian, and transit facilities are improved to provide the best access for all travel modes. While student housing capacity is again in need of expansion, the present Plan proposes redevelopment of existing housing to increase density without relocating residential units from their surrounding supportive uses, green spaces, and academic connections.
While there are notable differences between the Grounds Plan and previous campus planning efforts, the concepts of both the 1990 Facilities Master Plan and the 1998 Landscape Master Plan have indeed given rise to several successful projects embodying similar objectives to the Grounds Plan. The following case studies highlight three such projects. While these projects are different in purpose and use, they have in common their dual successes of meeting specific program needs while improving the larger University community through benefits and connections beyond each project’s site. The 1990 Facilities Master Plan stated that selective infill was needed in West Grounds and that buildings should consider the effects of their location on adjacent green spaces, a goal most certainly accomplished by the Wilsdorf Hall project. The 1990 Facilities Master Plan and 1998 Landscape Master Plan also recommended that natural green spaces be preserved and used to promote pedestrian connections throughout Grounds; this has been accomplished by the Dell stormwater project. Finally, the earlier plans recommended that measures be taken to weave the Grounds together with greater clarity and spatial continuity. Siting new buildings should bridge the gaps between precincts, a task which has been undertaken by the ambitious South Lawn project.

WILSDORF HALL
Infill development and connectivity
The 1990 Plan identified the West Precinct of the University as a key area for future academic and research expansion, as well as a prime location for a perceived “physical consolidation of the University.” Given the dynamic and evolving research needs that exist in the fields of engineering and the sciences, the area south of

NOTABLE PROJECT TIMELINE
This timeline highlights building and landscape projects, as well as related publications, that exemplify one or more of the principles of the Grounds Plan. Items are organized by their actual or estimated completion date.

THE DELL
This award-winning project represents a creative response to the challenge of stormwater management, providing environmental and aesthetic improvements to the Grounds while meeting the stormwater banking needs of the John Paul Jones Arena.
McCormick Road seemed to offer limited expansion opportunity. A unique solution was necessary to provide the functionality desired by the departments involved, while respecting allowable density and site constraints to produce a facility that meshed seamlessly with the existing conditions on Grounds.

Construction of Wilsdorf Hall was completed in 2006 after considerable time spent garnering financial support from donors, the University and other private foundations. The finished structure stands five stories tall and is approximately 100,000 gross square feet, linking the University’s existing materials science and chemical engineering buildings. The building houses multiple research laboratories, faculty offices, conference rooms, computational facilities, and work-study areas. Additionally, Wilsdorf is home to the University’s nanotechnology research laboratory, which was subsidized by the Virginia Partnership for Nanotechnology Education and Workforce Development alongside the National Science Foundation (NSF). The state-of-the-art nanotechnology laboratories were designed to inhibit vibration and sound interference, and to accommodate future generations of nanoscale materials, enabling research to move far beyond what was currently possible on Grounds. Because of the unique needs of this science, much of the lab space associated with nanotechnology exists below grade in a basement and sub-basement, resulting in a smaller building footprint than originally anticipated.

**OBSERVATORY HILL DINING HALL** The grass ellipse created to the south of the dining hall provides much needed open space to the Alderman Road Residence Hall area and offers an outdoor compliment to the community gathering spaces within the building.

**HISTORIC PRESERVATION FRAMEWORK**

**PLAN** This plan evaluated over 140 buildings and landscapes, setting the framework for the continued preservation and study of the University’s post-Jefferson built history.
A grant from the NSF helped solidify the success of this project; while the original structure was projected to cost roughly $10 million, finished construction reached nearly $43 million. This combination of University funding and outside donor and agency support during the design development and construction phases represents the integrated nature of the facility itself, and the potential for Wilsdorf to garner acclaim for its innovative design strategies.

Functioning as a true infill project, Wilsdorf uses limited space to connect the multiple functions of the School of Engineering and Applied Sciences and the College of Arts and Sciences, specifically the chemistry and materials science programs. A mixed-use component is also present, as Wilsdorf boasts social space alongside its functionality as an academic research center. The limited footprint also respects the importance placed on green space throughout Grounds and provides direct pedestrian linkages to adjacent structures and proximity to public transit options. The result is more effective than locating the facility on a greenfield site less accessible to students and faculty. Wilsdorf Hall successfully pairs efficient use of constrained space and existing infrastructure with functionality of academic space and connectivity among several research programs within the University.

THE DELL

Day-lighting Meadow Creek: environmental quality

The concept of the Dell project was originally introduced in the 1999 Strategic Plan for Water Resources Management (SPWR), a collaborative effort completed as a critical component of this master planning process. At the time, much of Meadow Creek and its smaller tributaries were being conveyed through underground pipes. The SPWR, along with the 1998 Landscape Master Plan, identified an opportunity to implement stream channel and floodplain restoration through day-lighting Meadow Creek. This proposal offered aesthetic, environmental, and economic benefits for the University community as well as the community neighborhoods located within the Meadow Creek watershed.

The project was initially proposed in three segments: day-lighting Meadow Creek at The Dell, near Memorial Gym, and around Carr’s Hill Field. While each segment was an important part of a holistic approach to addressing stormwater management on Grounds, simultaneous completion was not necessary. Meadow Creek was chosen in part because the University of Virginia has ownership of the stream’s headwaters; the segment including the Dell was identified as the first portion of Meadow Creek to be day-lit because of its proximity to those headwaters and its prominent location on Grounds. A targeted study was commissioned, building upon the conceptual plans for the Dell, estimating total construc-
tion costs for site work, stream restoration, landscape planting and improvements.

While day-lighting Meadow Creek took longer than traditional stormwater management engineering projects, its implementation provided mutually beneficial results beyond the initial project boundaries. When plans for the John Paul Jones Arena were announced, the day-lighting proposal presented a cost-effective way to mitigate downstream stormwater run-off and drainage issues presented by the arena construction. This averted the need to build a large stormwater retention pond near the arena. In addition to these benefits, the arrangement allowed the Dell site to become an outdoor classroom for students, a place for repose along the otherwise busy Emmet Street corridor, and an area for rec-
reation and pedestrian circulation between West and Central Grounds.

The storage and retention capabilities of the Dell were designed to accommodate additional growth. This “banking system” offers an innovative approach to stormwater management for constrained infill development, allowing future construction projects to access quantity and quality credits if on-site mitigation is not feasible. Projects such as the Ivy/Emmet parking garage followed this precedent set by the Dell, day-lighting a Meadow Creek tributary and conserving natural habitat along the stream banks while adding to the capacity of the banking system. Future projects, such as the South Lawn, are expected to continue this approach as the University continues to pursue a strategy of environmentally conscious infill development on Grounds.

**SOUTH LAWN**

**Development, community integration, preservation**

The South Lawn project is the brainchild of former Arts & Sciences Dean Mel Leffler. Originally termed the “Digital Academical Village,” the project creates a presence for the College of Arts and Sciences on the south side of Jefferson Park Avenue and accommodates future growth in College programs. The siting of the project on the south side of the thoroughfare offered an opportunity to connect the precinct visually, physically and metaphorically with Central Grounds through an ordered, articulated space derived from the Lawn. Bringing students and faculty together for open dialogue and an active connection outside the academic classroom was also desired, and the plan for South Lawn prioritized outdoor activity space and circulation. A strong desire to “knit” the University community back together drove the final axial arrangement of buildings and green space in an effort to unify the Arts & Sciences buildings to the Health System. The incorporation of LEED standards into the site planning and design of the project added to its overall success and influence.

Interaction between the various communities involved in the project was imperative as plans for the South Lawn developed. Planning workshops were held within the University’s internal community, involving key players and programs in the Health System and the College of Arts and Sciences, in addition to others. The products of these meetings were invaluable to the overall South Lawn design process and to the greater campus planning vision. Public meetings were also held to engage members of the greater Charlottesville community, specifically those individuals living in close proximity to the development of the South Lawn. In this way, the South Lawn became a multi-faceted project involving different types of communities interconnected by the future development proposed for the site.

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© RUFFIN HALL Constructed for the Studio Arts program, this new building extends north from the Fiske Kimball Fine Arts Library and provides a built edge to frame a landscaped central space as planned in the Arts Grounds Master Plan.

© CLAUDE MOORE NURSING EDUCATION BUILDING Located on 15th Street adjacent to the School of Nursing in McLeod Hall and the upcoming Medical Education Building, this building extends the clinical education complex to previously underutilized land in close proximity to the Hospital and the Academical Village.
The design development stage of the project was an involved process through which the University addressed a number of concerns from city residents surrounding the site and the University. Each challenge was approached with the intent to reach a solution and provide an improved project benefiting the overall community. One example of this was the solution offered to residents along Oakhurst Circle who felt the initial plans were out of scale with the surrounding community. Revisions were made to the placement of the structures, integrating them into the natural topography of the site to respect the residential feel of the area.

The South Lawn project also raised questions as to how the University would address cultural resources, pertinent to the history of the institution, in the face of future development. Because the South Lawn project resides in...
an area once known as “Canada” - the historic location of an early free African-American community - tension between the plans for development and the importance of acknowledging cultural history needed to be addressed. The decision to retain the historic freed-person’s home site and adjacent African-American burial ground to create an interpretive public park in commemoration was viewed as a positive step. The move unified the vision of the South Lawn project to the overarching history of the University itself, creating cultural ties that are essential.

**RUGBY ADMINISTRATIVE BUILDING** Originally built as faculty apartments, restoration of this currently vacant building will provide space for administrative offices while preserving University history and conserving the embodied energy of building materials and construction efforts.
The South Lawn project is an exemplary model for the successful integration of communities past, present and future. While incorporating innovative design solutions that push the University toward ever more sustainable goals, the project also exhibits the challenges and rewards involved in the merging of communities toward one vision. By taking the time to understand individual concerns and provide case-sensitive answers, the University was able to address issues effectively through communication and compromise. The South Lawn exemplifies the benefit cross-community and cross-cultural engagement has on a project and its future success.

**NEXT STEPS**

While the Grounds Plan presents a vision and guidance for University development over the next twenty or more years, UVA is actively involved with implementing sustainability programs in the present. Multiple initiatives have been developed throughout University practices, as presented in the 2006 Sustainability Assessment. Of particular significance is the Board of Visitors (BOV) 2007 approval of LEED (Leadership in Energy and Environmental Design, USGBC) certification for all future buildings and major renovations; BOV 2007 approval of the Grounds Improvement Fund (GIF) which provides for improvements of pedestrian, bicycle, and transit facilities throughout Grounds; and the sustainability assessment described below, which provides a tool for continuous sustainable improvements for UVA.

Delivering a sustainable vision for the University will be a collaborative effort involving many partners including the various Schools, administrative officials, faculty, staff, student groups and other authorities. All partners will need to contribute to realizing the short and long term goals for the successful implementation of a sustainability process. Recognizing that new technologies may emerge in the future, and that the economics of some current technologies may improve over time, it is intended that the 2008 Grounds Plan will strive to promote progressively higher standards for sustainable design. This approach will provide flexibility in achieving sustainability goals through the most technologically and economically feasible means.

To implement this sustainable vision, UVA will utilize the SPeAR™ (Sustainability Project Appraisal Routine) sustainability framework tool designed by ARUP, the global firm of engineers, planners, designers and business consultants. This tool was developed to allow assessment in four major areas: natural resources, environment, social and economic, that broadly reflect the three major categories used in the triple bottom line of equity, economy and environment. The four quadrants represent specific issues identified within the United Nations’ Brundtland Commission report, “Our Common Future”, a basis for sustainability programs for local authorities around the world. It is intended that the SPeAR assessment process be coupled with the annual management objectives cycle at UVA and updated accordingly.

**NEW CABELL HALL** Renovation of this 160,000 GSF classroom facility, completed in 1952, will modernize teaching spaces, overall finishes and building systems and create a strong connection to the South Lawn Project.

**LEE STREET** Significant improvements to Lee Street and the entrance to the Main Hospital are designed to better direct patients and visitors as well as form a more cohesive functional and aesthetic connection between Health System facilities.
THE SPeAR™ assessment is based on a seven-point scale, shown here in the exemplary diagram. Areas of strength are indicated by bright green segments close to the center of the perimeter, designated by the number “3”, and areas of weakness are indicated by dark red segments around the perimeter designated by the number “-3”. This enables trade-offs between indicators when specific alternative actions are compared. The baseline assessment establishes the current sustainable strategies implemented at UVa. The assessment identifies strengths, weaknesses, gaps and opportunities, which provide a starting point to track UVa’s performance and to identify proposed improvements.
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Grounds Plan Appendix
Section 1, Historic Research Documentation Footnotes
Photo Credits
Reports, Studies, and Analysis completed in direct support of the 2008 Grounds Plan

1. UVa SPeAR Program Sustainability Assessment
Location: Report in Office of the Architect / UVa Resource Center
Author: ARUP Engineering, San Francisco/New York offices, May 2008 with periodic updates

The Arup SPeAR™ (Sustainability Project Appraisal Routine) Assessment provided a framework for planning, identifying areas of weakness and strength in UVa’s current sustainability performance. As a component of this work, UVa appointed Arup to provide a baseline assessment of its sustainability performance. The sustainability framework used for the assessment was based on the Arup SPeAR™ (Sustainability Project Appraisal Routine) tool. This tool was developed to allow assessment in four major areas: natural resources, environment, social and economic, that broadly reflect the three major categories used in the triple bottom line of environment, economic, and equity. Each of the four quadrants includes focus areas based on specific issues identified within documents including the Brundtland Commission report, “Our Common Future”, the Earth Summit endorsed protocol for Agenda 21 (a basis for sustainability programs for local authorities around the world). Each focus area includes indicators. The focus areas and indicators included in the assessment were tailored to UVa. The tool provides a visual depiction of performance in the four key sectors: Natural resources, Environmental, Social and Economic systems. The graphic representation makes plain both the linkages between economic, social, natural resources and environmental systems, and the areas of relative strength and weakness. In addition to the report, a tracking system and spreadsheet are in use by UVa which will allow the University to track progress made in indicator areas over time.

2. Space Needs Projection Planning Model Summary Report
Location: Report in Office of the Architect / UVa Resource Center
Author: Ira Fink and Associates, University Planning Consultants of Berkeley, October, 2007

The Space Needs Projection Planning Model Summary Report, authored by Ira Fink and Associates, was developed in support of the decision-making process for the University Grounds Plan. This report describes the model used to analyze the growth of all facilities that will result from future student enrollment and faculty growth at the University of Virginia. The model was used to generate two potential growth scenarios—Steady State and Research Centric—for the next ten and twenty years for the Charlottesville campus, and the summary report includes a review of the outcomes of these two scenarios. In addition to the report, the electronic model was provided to UVa for use with future analysis, should there be a need for flexibility in planned growth.

3. University of Virginia Transportation Demand Management Plan
Location: Report in Office of the Architect / UVa Resource Center
Author: Vanasse Hangen Brustlin, Inc. in association with Land Planning and Design Associates, July 2007 for Phase 1, Phase 2 Report to be released later

The University of Virginia’s Transportation Demand Management Plan, developed by the firm of Vanasse Hangen Brustlin, Inc., in 2007 as a part of the Grounds Plan, seeks to enhance Grounds planning decisions for improving mobility while respecting the university’s environmental, historic, and cultural contexts. The report offers extensive analyses concerning existing conditions of pedestrians, bicycles, parking, traffic, transit, and commute options. In addition, the plan suggests “tools and mechanisms to better link transportation
and land uses to affect a more efficient and sustainable transportation system” and proposes a strategic approach to transportation system improvements over 10- and 20-year planning horizons.

4. UVa Biodiversity Analysis and Conservation Assessment
Location: Report in Office of the Architect / UVa Resource Center
Author: NatureServe of Arlington, VA, 2006

In 2006, as a part of the Grounds Planning process, the University of Virginia commissioned NatureServe of Arlington, VA, to create a comprehensive biodiversity analysis of lands owned by the University and the University of Virginia Foundation (UVAF). The resulting report entitled University of Virginia Biodiversity Analysis, explains opportunities for conservation as well as threats to important elements within the UVa and UVAF environs. The report analyzes data concerning land cover, habitat fragment, stream habitat, species occurrence, soil type, and regional context; providing a data inventory and analysis to prevent conflicts with regulated species and habitats, maintain the natural heritage of the University and Commonwealth, and enhance the environmental health and quality of those at the University and in the region. In addition to the report, NatureServe provided a supplementary GIS-based software tool, entitled NatureServe Vista, which will be used by University staff to help guide future conservation and land use decisions.

5. UVa Master Planning Council Documentation
Location: http://www.virginia.edu/architectoffice/mpc.html

The Master Planning Council, chaired by the Office of the Architect, is charged with the task of advising the President of the University on mid-term and long range physical planning for the University of Virginia. The Council is composed of University leadership, City of Charlottesville and Albemarle County planning representatives, and two University students. Documentation of the Master Planning Council’s activities, including Meeting Notes and Presentations, may be found on the Office of the Architect’s website.

6. UVa Collaborative Workshop Reports
Location: http://www.virginia.edu/architectoffice/workshops.htm

The Office of the Architect conducted seven collaborative workshops from 2004-2006, convening members of the academic, administrative and operational uses associated with Central, West and North Grounds. These workshops served as a forum to establish the needs of each user group, and to develop conceptual plans aimed at meeting those needs in support of the Grounds Planning process that followed. The workshops were focused in the following areas on the dates noted. Full reports are provided at the website location noted above.

Brandon Ave, Monroe Lane, 15th St. Area Workshop
Workshop Held: February 18-20, 2004

Arts Grounds to North Grounds Area Workshop
Workshop Held: March 31 & April 1, 2004

Health System / West Main Street Area Workshop
Guidelines, Reports, and Studies Supporting University-wide Practices

1. UVa Current Planning and Projects Report
Location: http://www.virginia.edu/architectoffice/
Author: Office of the Architect, First released 2006 (Updated regularly)

The University of Virginia Current Planning and Projects Report describes all projects for both the UVa Grounds and the UVa’s College at Wise that are in Planning/Design and Construction Phases. For each project, the report includes documentation of the cost, architect, contractor, and dates of construction, along with project images and photographs. The document is updated periodically as projects move through planning and design, to construction, and finally to completion.

2. UVa Historic Preservation Framework Plan
Location: http://www.virginia.edu/architectoffice/pdf/UVa_HPFP_2007_WEB.pdf
Author: Office of the Architect, 2006 (Revised 2007)

Recognizing that post-Jefferson buildings and landscapes contribute to the unique character and sense of place at the University of Virginia, the Office of the Architect published the Historic Preservation Framework Plan in 2006. This framework plan explores the historical development of the ensemble of buildings and settings that form the current Grounds. Through the description of a sequence of five periods of construction at the University, the plan presents a history of each historic building, a summary of its importance to development, and information about its design and current condition. In addition, the plan assigns a preservation priority to each building and significant landscape component in order to describe the buildings’ relative importance and to provide a practical framework for evaluation of past, current, and future development at the University of Virginia.
3. UVa Design Guidelines
Author: Office of the Architect, January 2006

In 2006, the Office of the Architect prepared a document entitled the University of Virginia Design Guidelines. Through text and image, this document provides a sense of direction about how the “unified richness and singularity of the architecture” present in Thomas Jefferson’s Academical Village might be achieved in designs for new buildings and landscapes of the University. The document presents guidelines for the Foundations of geometry, massing, openings, and circulation; the Experiences of connectors, layers, and building landscapes; the Resources of various building materials; and the Collaboration of the review and approval process.

4. UVa Guidelines for Sustainable Buildings and Environmental Design
Author: Office of the Architect, August 2005

Guidelines for Sustainable Buildings and Environmental Design, a document prepared by the Office of the Architect in 2005, provides an introduction to sustainability issues at the University and outlines both objectives and strategies for cultivating a holistic approach to the environment at UVa. In addition to offering an overview of the University’s environmental context and natural systems, the document presents eight main objectives for managing University development in terms of design, construction, and operation. These eight objectives are Energy Use and Conservation, Water Resources, Materials and Resources Conservation, Indoor Environmental Quality, Site Planning and Design, Local Climate and Climactic Design, Historic Preservation and Adaptive Re-Use, and Transportation. The document also includes a comprehensive list of resources that may be consulted as a complement to the University’s sustainability guidelines.

5. UVa Facilities Design Guidelines
Author: University of Virginia Facilities Management, November 2004 (7th edition, periodic updates)

Facilities Design Guidelines, published by University of Virginia Facilities Management in 2004, is a comprehensive regulatory document that guides and assists architectural and engineering consultants, as well as Facilities Management staff, in the planning and design for construction and renovation projects for University facilities. The document includes both procedural and technical requirements for seven categories related to facility design and construction: Historic Preservation, General Requirements, Sitework, Building Envelope, Interiors, Building Services, and Contract Administration. The information presents information that, when conscientiously considered, will help to “restore the Founder’s vision of the reciprocity between the academic plan and the physical plan of the University.”

6. Master Plan for a Comprehensive Archaeological Survey of the University of Virginia
Location: Report in Office of the Architect / UVa Resource Center
Author: Rivanna Archaeological Consulting, October, 2003

In 2003, the Charlottesville firm of Rivanna Archaeological Consulting completed a report entitled Master Plan for a Comprehensive Archaeological Survey of the University of Virginia. This document outlines a framework for a com-
prehensive archaeological survey of sixteen historic precincts located on property owned by the University of Virginia and the University of Virginia Foundation. The report provides an overview of previous archaeological investigations, assessment of historic precincts regarding potential to contain archaeological resources, development of a Survey Priority Table, and presentation of recommendations and guidelines for all future archaeological work at the University. Continuing the University’s strong history of preservation and stewardship of valuable cultural resources, the archaeological Master Plan provides a foundation for developing a comprehensive and effective archaeological resources management system.

7. UVa Strategic Plan for Water Resources Management
Location: Report in Office of the Architect / UVa Resource Center
Author: Andropogon Associates, Ltd. (with Cahill Associates and MMM Design Group), 1999

The University of Virginia's Strategic Plan for Water Resources Management is a landmark study that illustrates the University's commitment to treating water as a central community resource and its belief that the management of water should influence and contribute to the design of the University Grounds. The firm of Andropogon Associates completed the report in 1999 with assistance from Cahill Associates and MMM Design Group, as well as with support from a Steering Committee and Technical Advisory Committee. Through the use of maps, charts, photographs, and detailed analysis, the report recommends a new sustainable approach to the management of water resources based on a 'Water Balance' model. This model helps University staff and consultants to evaluate solutions for stormwater management, restoration opportunities, and land use and development strategies. This approach ensures that functional, environmental, recreational, and aesthetic benefits will be achieved not only for the University community, but also for neighboring communities and other members of the Chesapeake Bay Watershed.

8. UVa Landscape Master Plan
Location: http://www.virginia.edu/architectoffice/masterPlanLand.html
Author: Ayers Saint Gross Architects and Planners and Michael Vergason Landscape Architects, 1999

In 1997 the Office of the Architect commissioned the firms Ayers Saint Gross and Michael Vergason Landscape Architects to produce a Landscape Master Plan for the University. The goal of the Landscape Master Plan was to provide a general framework to re-establish the delicate balance of buildings and landscape throughout the Grounds, that Thomas Jefferson created in the Academical Village. To accomplish this task, the plan both reinforces the long-range vision of the University master plan and provides guidance for day-to-day decisions about individual project development, landscape improvements, and upkeep. The document begins with a series of general observations about the campus landscape, continues by providing analysis of the landscape through inventory and detailed review at the precinct level. It concludes with seven key recommendations that will ensure that the University’s landscapes continue to be strong social, physical, and temporal connectors.
Grounds Plan Appendix

1. Section 1, Historic Research Documentation Footnotes

1Turner, 20-1.
5West Gardens Archeology, 16, 17
7Historic Preservation Framework Plan
11Yetter, SW at the University of VA, 1981
12“The attention of the Committee has been directed to some shanties just over road from “the Infirmary” and adjacent to a settlement known as “Canada”, and as they are not necessary and are conspicuously detractive from the completeness of the lawn to which they are attached it is deemed best that they should be removed and it is therefore proposed that the Proctor be required to take them away and as soon as possible put the ground in grass.” BOV June 22, 1872
14(September 12, 1948 BOV Minutes)
159/15/1956 BOV Minutes
16February 11, 1949. Presidents Papers?
17Landscape Plan, HPMP. Need separate confirmation of this motivation, and date. Renamed in 1950.
21BOV Minutes June 10, 1960
23Interview, Werner Sensbach 8 June 2007. Need exact wording on budget issue—not able to completely follow.
24Article on Satellite Campus
25Turner, 277-8

2. Photo Credits

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Pg. 10, Fig. 2 - Engraving by Peter Maverick (1825), Special Collections, University of Virginia Library
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Pg. 14, Figs. 1-2 - A Map of the University of Virginia with Water Pipes, Charles Ellet, Jr. (1856) & Plan of University Cleared Land, William A. Pratt (1858), Special Collections, University of Virginia Library
Pg. 15, Fig. 4 - Special Collections, University of Virginia Library
Pg. 16, Figs. 1-3 - Special Collections, University of Virginia Library
Pg. 18, Fig. 1 - McKim, Mead & White Plan (1896), Special Collections, University of Virginia Library
Pg. 18, Fig 2 - UVA Facilities Management Resource Center
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Pg. 24, Fig. 1 - Special Collections, University of Virginia Library
Pg. 27, Fig. 1-2 - Uva Facilities Management Resource Center
Pg. 62 - Fayerweather Hall, Tom Crane
Pg. 63 - Wilsdorf Hall, Dan Addison, U.Va. Public Affairs
ACKNOWLEDGEMENTS

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