CHAPTER 3

THE EVOLUTION OF A CAMPUS (1756-2006)

Princeton University has always been a dynamic institution, evolving from a two-building college in a rural town to a thriving University at the heart of a busy multifaceted community. The campus changed dramatically in the last century with the introduction of iconic "collegiate gothic" architecture and significant postwar expansion. Although the campus exudes a sense of permanence and timelessness, it supports a living institution that must always grow in pace with new academic disciplines and changing student expectations. The Campus Plan anticipates an expansion of 2.1 million additional square feet over ten years, and proposes to achieve this growth while applying the Five Guiding Principles.

1906 view of Princeton University by Richard Rummel. In this view, the original train station can be seen below Blair Hall, whose archway formed a ceremonial entrance to the campus for rail travelers. The station was moved to its current location in the 1920s.

Campus History

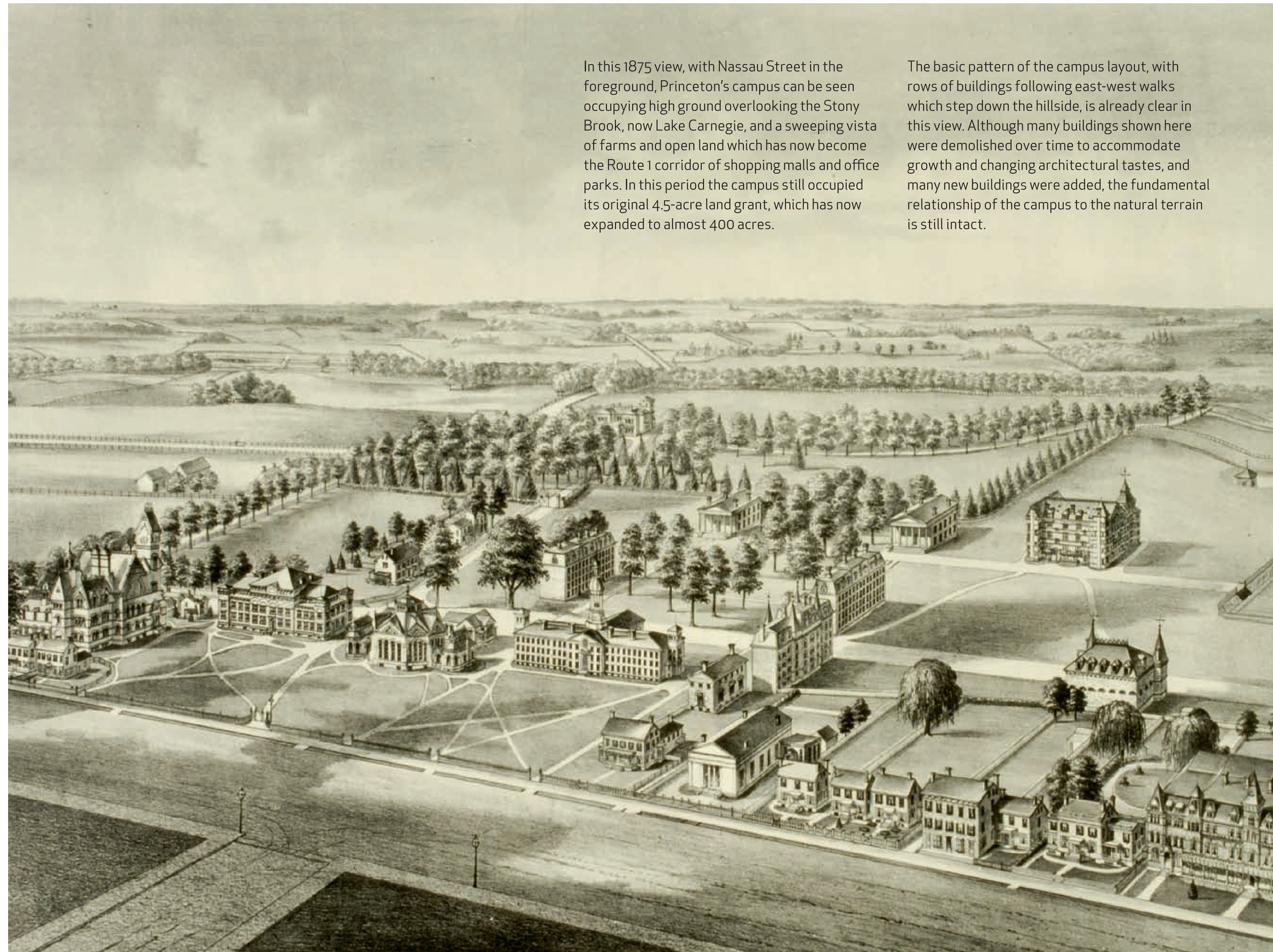
Starting as a small academic enclave in a pastoral setting, the campus has grown in its 250 years to span almost 400 acres.

In 1753, after competing with New Brunswick, the community of "Prince-Town" persuaded the trustees of the College of New Jersey to select it as the new site for the growing institution, based in part on what were seen as the pedagogic benefits of a sheltered location far from the corrupting influence of cities. Land was donated by the FitzRandolph family for the relocation of the college from Newark, where it had moved a few years before from its original home in Elizabeth. The relocation was completed in 1756.

The unique terrain of the chosen site resulted from its situation "...on the first high land which separates the alluvial plain of South Jersey from the mountainous and hilly country of the north. There is a gentle depression between it and the mountain, and a gradual decent on every other side of it towards the streams that nearly encircle it." [1] Understanding this underlying geology does much to explain the experience of Princeton's campus as a stepping hillside whose wide-open southern vistas are today obscured by the growth of trees and construction of buildings. The woodlands and fields below the campus would permit the growing University to expand far beyond its original 4.5-acre tract—a boundary line still visible today, traced by the path of McCosh Walk across the upper campus.

The shape of the land influenced architects and landscape architects, particularly between 1900 and 1940, who made use of its hills and escarpments to create the dramatic compositions and sense of spaciousness which define the unique character of the campus. Despite its modern density of development, the campus still maintains a character of open views and lack of enclosure that contrasts with that of many other universities defined by quadrangles. The terrain also has a newfound importance in this Campus Plan—which seeks to recover the symbiotic relationship between campus design and natural systems, and to restore the environmental health of the woodlands and watersheds on which the campus is built.

The design of Nassau Hall, which once housed the entire college, was adapted from the College of William and Mary, and its collegiate symbolism would in turn influence university buildings around the country including those of Harvard, Brown, Dartmouth, Georgetown, and Rutgers.[2] A unique feature of the design was the decision to locate the building 300 feet back from Nassau Street, Princeton's



In this 1875 view, with Nassau Street in the foreground, Princeton's campus can be seen occupying high ground overlooking the Stony Brook, now Lake Carnegie, and a sweeping vista of farms and open land which has now become the Route 1 corridor of shopping malls and office parks. In this period the campus still occupied its original 4.5-acre land grant, which has now expanded to almost 400 acres.

The basic pattern of the campus layout, with rows of buildings following east-west walks which step down the hillside, is already clear in this view. Although many buildings shown here were demolished over time to accommodate growth and changing architectural tastes, and many new buildings were added, the fundamental relationship of the campus to the natural terrain is still intact.

Topographic map of Princeton University by Louis-Alexandre Berthier, 1781
Depicting an encampment of the Continental Army during the Revolutionary War, this map also clearly shows Nassau Hall located on a hill above three streams leading to the Stony Brook valley below. Though altered by development, these streams are still important natural features of the campus.

Plan for the Architectural and Topographical Development of Princeton University, Ralph Adams Cram, 1911
This plan reveals a subtle combination of axial symmetry with informal building arrangements following the terrain. New buildings define courtyards and create walls around the edge of campus, separating it from the surrounding town. A notable feature of the plan is its "upside down" orientation —with north pointing downwards—so that Nassau Hall is clearly identified as the front of campus.

main street. This pairing of a broad open green space with a building inspired the first known American use of the word "campus" to describe the grounds of a university or college, in 1774, supplanting the earlier term "yard" still used today to refer to the historic grounds of Harvard and other universities.[3] At Princeton, this marriage of architecture and landscape began with Nassau Hall would become a defining quality over the University's long development.

Today the very idea of campus is synonymous with American education. As described by John Turner, the author of the most comprehensive history of American campus planning, "The word campus, more than any other term, sums up the unique physical character of the American college and university...[B]eyond these purely physical meanings, the word has taken on other connotations, suggesting the pervasive spirit of a school, or its *genius loci*, as embodied in its architecture and grounds. Campus sums up the distinctive physical qualities of the American college, but also its integrity as a self-contained community and its architectural expression of educational and social ideals." [4]

Princeton's campus design evolved with changing tastes and planning trends, and while each generation sought to define the look of the campus, many of the traces and monuments of previous eras persisted. In the late 1800s, President McCosh deliberately commissioned buildings in an eclectic range of architectural styles, but insisted on a robust landscape and park-like character for the overall space. Later, attempts to create a sense of greater order were interspersed with counteracting efforts to create picturesque and varied spaces and buildings. The resulting mix, with some areas more unified and some more varied, is one of the reasons the campus is so appealing today. In the words of architects Robert Venturi and Denise Scott Brown, who designed five major buildings on campus between 1983 and 1999, this syncopation has "made the Campus Plan incomplete and yet ironically whole at any one time." [5]

In 1906, ten years after the College of New Jersey renamed itself Princeton University, the trustees appointed Ralph Adams Cram to the newly established position of supervising architect, which he held until 1929. Although many of America's greatest architects would work on the campus over its history, with varying success, Cram remains the central figure who understood Princeton's nature as an institution, and the uniqueness of its site, better than any other. He was inspired by the vision of University President Woodrow Wilson to emulate the collegiate model of Oxford and Cambridge: "a place full of quiet chambers, secluded ancient courts, and gardens shut away from intrusion—a town full of coverts, for those who would learn and be with their own thoughts." [6] Cram's interpretation of this idea would transform the campus, breaking down the scale of the University into smaller architectural and social groupings centered on courtyards and sheltered from the surrounding town by walls and archways. The language of gothic architecture allowed Cram to design complex, picturesque spaces, creating for the observer "the revelation of the unexpected."

Cram's influence was seen not just in the design of individual buildings, but through a series of comprehensive master plans for the campus between 1908 and 1925, which would guide the work of numerous architects as late as the 1940s. According to Cram's biographer Douglass Shand-Tucci, "During that time and notwithstanding his other important collegiate gothic work...Cram created—not just in his firm's work but in that of others—what most would agree is the most resplendent gothic university campus in the New World." [7]

During the same period, Beatrix Farrand served as the supervising landscape architect, establishing the distinctive approach to landscape that together with the planning and architectural vision of Cram would create an enduring identity for the campus. Cram and Farrand often sharply disagreed over the design of the campus, but today it is clear that the University's buildings would not have the impact they do without the unifying power of the campus landscape—the simple and elegant greens, complementary plantings, tree canopy, and carefully choreographed views Farrand cultivated over three decades. Many of her landscapes survive today, including broad areas of campus, as well as numerous individual trees and her signature "wall plantings"—actual trees pruned to grow against the side of a building. Their endurance is a testament to her understanding of sustainable landscapes, a concept which this Campus Plan has reinvigorated.

The image of Princeton created in the first half of the 20th century is indelibly and lovingly held in the consciousness of anyone who has attended the University or visited the campus. Despite the rich variety of architectural styles on campus, the collegiate gothic period continues to be a defining characteristic of Princeton's campus identity. The power of this image is evidenced today by the immense popularity, especially among alumni and students, of the recently completed Whitman College dormitories, designed by Demitri Porphyrios in an interpretation of the University's gothic style, and constructed with a deep commitment to traditional methods of stoneworking and building.

After the Second World War, the University grew rapidly, increasing its square footage by over 150 percent by 1980. Campus growth was driven by the national emergence of the sciences as a major source of expansion for universities, reaching far beyond the traditional humanities that once defined the liberal arts college education. Princeton also saw the creation or expansion of its three professional schools: the School of Architecture, the School of Engineering and Applied Science, and the Woodrow Wilson School of Public and International Affairs.

In these postwar years, campus development occurred with a conscious shift away from the collegiate gothic vision of Ralph Adams Cram and his contemporaries. Buildings such as the Engineering Quadrangle, Jadwin and Fine halls, and the recently demolished Butler College dormitories contrasted with the historic campus not only because of their austere architecture, reflecting the modernist sensibilities of their designers, but also as a result of reduced attention to the landscapes and pathway connections that support and reinforce diverse architecture and unite it into a common campus setting. The size and bulk demanded by buildings for the sciences further departed from the intimate scale of the older campus; large introverted complexes with disconnected internal courtyards and blank exterior walls,

Wyman House Garden by Beatrix Farrand, 1941

New South by Edward Larrabee Barnes, 1971

Wu Hall by Venturi Scott Brown, 1983

such as Jadwin Physics and the E-Quad, worked against the planning of the campus, and continue to pose challenges today to the vitality of their surroundings.

In the 1980s and '90s, development on campus became more sensitive to context. The buildings of Robert Venturi and Denise Scott Brown exemplified a renewed interest in creating a modern identity for the campus that nonetheless made strong references to Princeton's historic architecture. Development during this period sought to impart a greater sense of coherent identity to an expanding space, and to create a sense of place in some of the less successful areas of the postwar campus.

Princeton as an institution has long ago been transformed from its English Protestant collegiate roots, which its gothic architecture aspired to symbolize, to a modern University of great diversity with myriad global influences, supporting the most advanced research and fields of

Icahn Laboratory by Rafael Viñoly, 2002

Both the public and the architectural community have tended to see the issue of tradition versus innovation in absolute terms: either the University turns its back on the past and commits to innovation, or it resists the new and stakes its claim for the continuity of tradition. This is clearly a false dilemma. Technology and society change continuously, and the most interesting architects working today are those who look for a synthesis of history with the demands of the present. The Campus Plan recognizes that it is above all the scale and texture of our outdoor spaces (both new and old) that make Princeton work so well. We need to honor the past through scale, materials, texture, and transition while still building innovative works of architecture that will effectively serve our teaching and research needs in the decades to come.

—STANLEY T. ALLEN,
DEAN OF THE SCHOOL OF ARCHITECTURE

inquiry. Recent buildings on campus tell a story of the inherent tensions between the contemporary identity of the University, the integrated sense of the campus as a whole, and the individuality of the architect. Navigating these tensions can be a significant challenge for even the most skilled architects, especially in the storied context of Princeton's beloved campus. This Campus Plan advances the idea that diverse and open modern architecture, expressing the contemporary identity of the University, can successfully fit within the overall sense of campus established by enhanced attention to the landscape and careful planning of the campus layout.

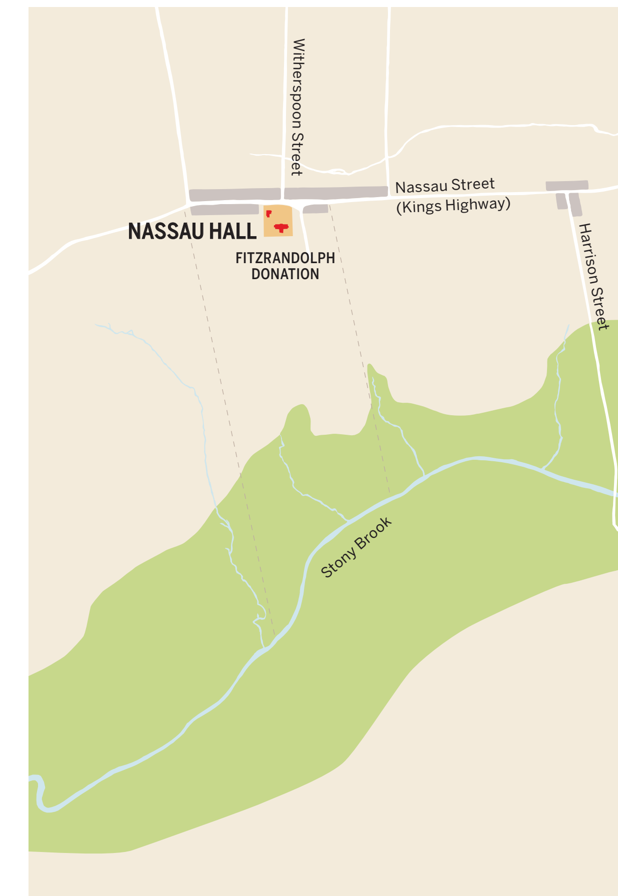
The Icahn Laboratory, designed by Rafael Viñoly Architects, is one of the best recent examples of a confident contemporary building with a strong identity that nonetheless fits elegantly within the context of the campus. It joins two other buildings in the gentle curve of the Ellipse, an open space conceived as part of the 1995 master plan by Machado and Silvetti Associates. A major campus pathway follows the building's external structure alongside a grand public atrium containing a popular café. These features successfully weave the building into the pattern of campus life and allow it to contribute to a larger idea of the campus beyond the specialized needs of the Lewis-Sigler Institute for Integrative Genomics, which it contains.

If anything can be learned from this vibrant history, which expresses through the development of the campus the history of American planning, architecture, and landscape architecture, it is that the Princeton campus is not a pristine artifact frozen in time. Despite indelible images which instill a sense of permanence, the campus has in fact been continuously evolving and changing. This is the nature of a living institution at the leading edge of new fields of knowledge, for which growth is a matter of survival and continued preeminence in the world of higher learning.

It is important to view this Campus Plan in its historical context; while it may appear that the next ten years will yield dramatic changes to the scale and density of the campus, they are actually very consistent with the history of campus evolution. Over the course of 250 years, the campus has constantly grown. It has roughly doubled in size three times since 1900, and has seen gradual but continuous aesthetic and structural transformations and refinements. Princeton's campus is simultaneously a site of historic significance and a constantly evolving space, a "work in progress" that is never truly completed. This Campus Plan continues the evolution of the campus into its next stage, for which a new set of challenges must be confronted and solved.

1 John F. Hageman, quoted in Breese, 4-5
2 Paul Venable Turner, *Campus: An American Planning Tradition* (Cambridge, The MIT Press, 1984), 47
3 Breese, xvi
4 Turner, 4
5 Rhinehart, ix
6 Turner, 227
7 Douglass Shand-Tucci, *Ralph Adams Cram: An Architect's Four Quests* (Amherst and Boston, University of Massachusetts Press, 2005), 50

THE EVOLUTION OF THE PRINCETON UNIVERSITY CAMPUS: 1756 – 2006



"It [the campus] was as much a state of mind as an architectural style, charged with connotations of Athenian democracy, purity, wisdom, and independence."

AS QUOTED IN "CAMPUS: AN AMERICAN PLANNING TRADITION," PAUL VENABLE TURNER, 1987

1756 A COLLEGE IN THE HEART OF NEW JERSEY

In the late 1600s, Nassau Street (then King's Highway) was a major traveling route between the Raritan River and the Delaware River. In the mid-1700s, located halfway along the route between New York and Philadelphia, the town of Prince-Town provided an overnight stay for travelers and began to grow along Nassau Street. In 1756, the College of New Jersey, as Princeton University was then known, was relocated from Newark, NJ, to Prince-Town, NJ, with approximately 70 students.

1852 THE CAMPUS' FIRST EXPANSION

Princeton developed into a village with relatively easy access to Philadelphia and New York. The campus was organized into an open quadrangle plan with a central axis and clear hierarchy, with Nassau Hall at the center. The new back campus quadrangle reflected the high value placed on the preservation of landscape openness by maintaining generous spaces between buildings.

The town of Princeton continued to expand outward from Nassau Street as well as in the Princeton Basin area with hotels, offices, loading basins, and factories dependent on the canal and railroad.

LEGEND

- Open/underdeveloped areas
- Developed areas
- Main campus areas
- Campus buildings
- Forested areas

1696
Town of Prince-Town settled

1746
College of New Jersey founded in Elizabeth

1756
Set on a protected topographic ridge, Nassau Hall was the largest academic building in the colonies and had an expansive panorama of farmland and forested valley to the south.

1774
First recorded use of the term "campus," taken from Latin and used to describe college grounds, in reference to the front green of Nassau Hall

1801
Route 1 built

1813
Princeton Borough delineated

1830
Joseph Henry suggested a symmetrical back campus quadrangle with two new dormitories and new buildings for the debating societies, Whig and Clio.

1834
D&R canal constructed, initially carrying freight as well as passengers

1838
Mercer County and Princeton Township delineated

1839
Railroad in operation

1852

Collegiate gothic is a "return step by step to the old ideals and sound methods of English colleges... to those...eternally enduring principles in life and thought and aspiration..."

RALPH ADAMS CRAM, 1914

1897 A CAMPUS IN A PARK

During the second half of the 19th century, President James McCosh (1868-1888) and President Francis Patton (1888-1902) oversaw a period of rapid building expansion that favored a more park-like setting for buildings, placing less importance on axes and symmetry than previous styles. The Victorian style of architecture provided an organic approach that complemented this landscape philosophy. This change of style coincided with a pedagogic shift from the fixed curriculum of a small Protestant college to a more modern concept of a university.

The town of Princeton continued to expand, surrounding the campus on three sides. The railroad station, still in its original northern location near Blair Hall, provided the gateway to the town as well as the University.

LEGEND

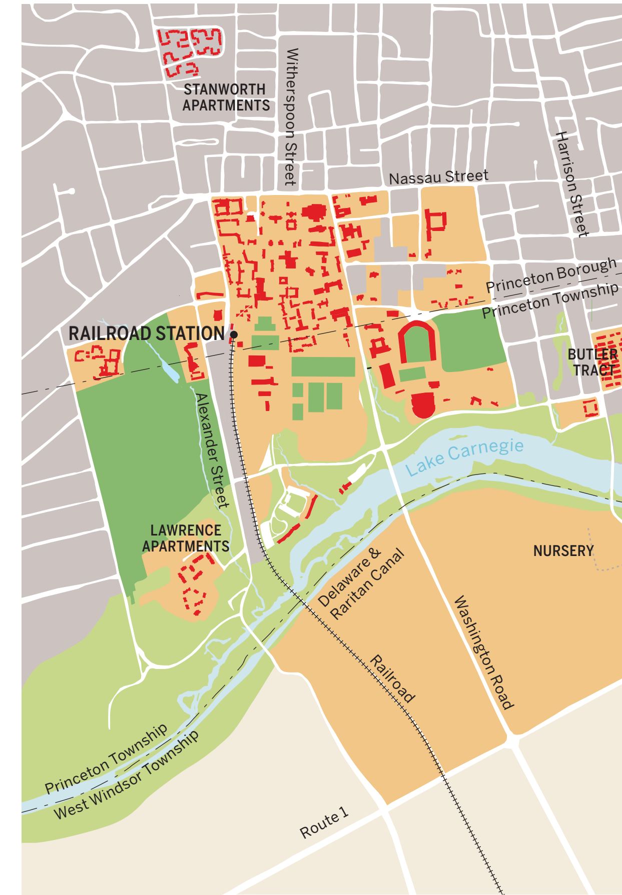
- Open/underdeveloped areas
- Developed areas
- Main campus areas
- Campus buildings
- Athletic fields
- Forested areas

1927 THE CAMPUS LOOKS INWARD

A major building program in the early 20th century was initiated by President Woodrow Wilson (1901-1912) and overseen by Ralph Adams Cram, supervising architect. In addition to new buildings, Lake Carnegie was created and the railroad (Dinky) station was relocated to the south.

Princeton was one of the first universities to undertake a master plan for its future growth. Wilson and Cram shared a vision for the campus that shifted away from the McCosh era's outward-looking and expansive landscape to a more enclosed arrangement of buildings, influenced by the architecture and scholarly seclusion of Oxford and Cambridge and emphasizing academic discourse among faculty and students.

Princeton Borough and Township settlements continued to grow with new residential areas west of the golf course and east of FitzRandolph Road. As the Dinky station moved south, many residential properties along Alexander Street were transformed for industrial and warehouse uses dependent on rail transportation.



"The University... is a growing organism whose form lies partly in the past, partly in the future..."

JOSEPH HUDNUT, 1947

1975 THE RESULT OF RAPID GROWTH AND EXPANSION

The combined effects of the Great Depression and World War II resulted in a 14-year building hiatus at Princeton (1933-1947). Due largely to increased government funding for laboratory buildings, a major and rapid campus expansion occurred in the 1960s which pushed the campus boundary farther to the south and located major academic facilities east of Washington Road, including the engineering school. By 1951 collegiate gothic was no longer the official architectural style "due to cost and other factors" and Princeton University, like Oxford, Cambridge, and other American universities, intended to build in a "contemporary" style.

The township and borough of Princeton also experienced a building boom after World War II. In the decade from 1950 to 1960, the population of the township doubled. By the 1970s the area was heavily populated and many new streets were created.

2006 GROWING AND GREENING THE CAMPUS

Since the 1970s the campus has continued to grow, infilling to maintain walkability, bringing innovative architecture to complement the historic buildings, and sustaining its landscapes and natural resources. Still recognized around the world for its impressive, eclectic mix of architecture and beautiful gardens, greens, and natural areas, the campus of tomorrow will have to meet the needs of the evolving institution while maintaining the historic beauty of the campus.

The township and borough of Princeton have a population of just over 30,000 people. In addition the University, the area is home to the Institute for Advanced Study, the Princeton Theological Seminary, and the Westminster Choir College. Its equidistant location from Philadelphia and New York City, coupled with historic charm and cultural and educational amenities, has made it a very desirable place to live and work.

- **1879** Ivy Club, the first eating club, established
- **1896** Official name changed to "Princeton University." Collegiate gothic adopted as official architectural style
- **1897**
- **1906** Lake Carnegie dedicated
- **1907** Role of supervising architect created—first filled by Ralph Adams Cram
- **1911** *Ralph Adams Cram proposed a north-south axis from Nassau Hall to divide the campus into residential and academic zones. (Not completed)*
- **1913** Graduate college built on golf course site, rather than south of McCosh Walk as President Woodrow Wilson proposed
- **1920s** Dinky station moved south
- **1927**
- **1962** *The construction of the Engineering Quadrangle buildings solidified the campus' presence east of Washington Road.*
- **1969** Trustees vote to admit women undergraduates
- **1970s** *The expansion of the campus toward the south and east marked a shift in its scale and character.*
- **1975**
- **1982** System of residential colleges established
- **2006**

Campus Growth by 2016

The line graph below charts the growth of Princeton University in terms of building square footage and student population from 1900 to the start of the Campus Plan in 2006. The graph also projects the same data from 2006 to 2016 based on planned projects and future recommendations.

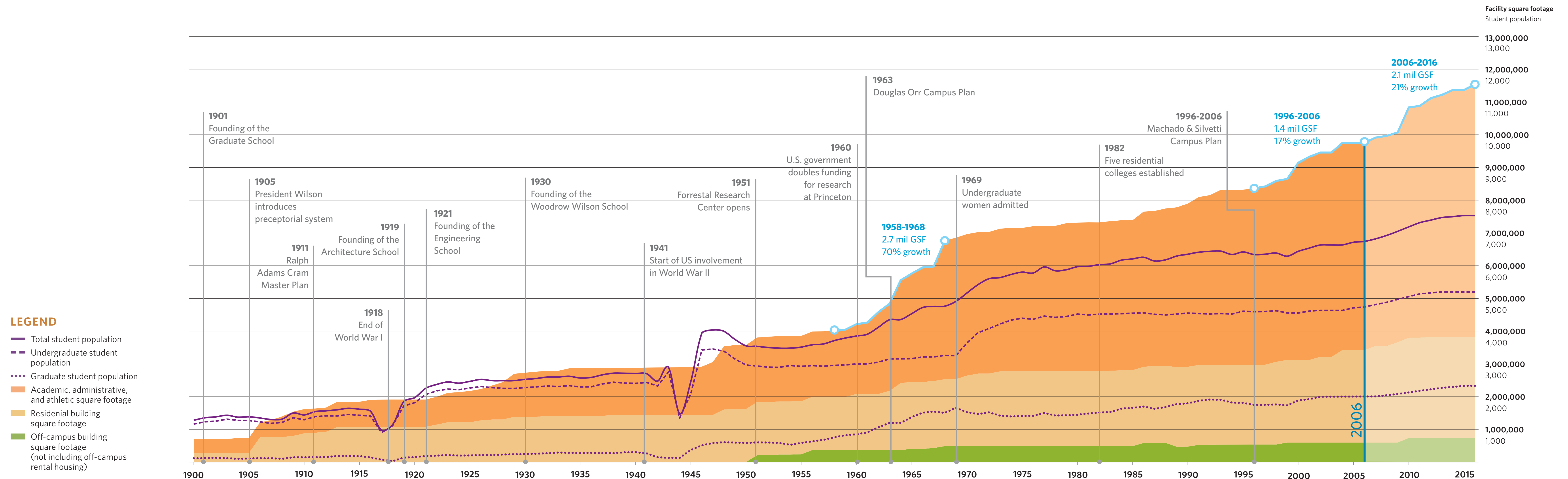
As the graph shows, the sizes of the physical plant and student population have increased steadily over the past century, but there are two periods of more rapid growth. The first period occurred in the 1960s with the boom in Cold War scientific research and funding. During this time, the construction of new and larger research facilities was accompanied by an increase in the graduate and undergraduate student populations. The second period of rapid growth began in the 1990s and continues to 2016. Though not as steep as it was mid-century, the last two decades of growth have expanded the size of the institution by almost 40 percent.

The early part of the 20th century saw building area and student population growing at similar rates, but that no longer holds true after 1960. Whereas the ratio of building area to population in 1940 was about 1,000 square feet per student, in 2016 it will approach 1,600 square feet per student.

Why is building area growing at a significantly higher rate than the student population? It is partly because modern academic and research buildings are larger than their historic counterparts. Furthermore, a modern campus requires more than just academic and residential buildings; it must provide its population with a variety of infrastructural and support facilities that contribute to campus life and the efficient operation of a large institution.

In the ten years from 2006 to 2016 the campus is projected to expand by an additional 2.1 million square feet—not as much as the record-setting decade of the 1960s, but very likely the second most intensive decade of growth in the history of the institution. The lesson of the 1960s for today is that periods of substantial growth need careful planning to ensure that the additions enhance the campus setting rather than detract from it, and that the impacts on the environment and the surrounding community are well understood and thoughtfully addressed.

> Balancing our desire to preserve the intimate yet majestic nature of Princeton's campus while meeting the needs of what is actually a very large and growing university was one of the most interesting challenges presented by the campus planning process. I believe that our neighborhood approach, and our landscape plan, were key factors in our ability to address this challenge successfully.
>
> —KAREN MAGEE,
> CHAIR OF THE TRUSTEE COMMITTEE ON GROUNDS AND BUILDINGS



THE CHALLENGE OF CAMPUS PLANNING AND DESIGN

Planning is so difficult because—at least in the early years of an institution's life—it seems so easy. We take the first steps naively, not quite realizing that each of them is full of consequence and will make every following move much more complicated. If the institution is lucky and alert, it may be able to turn future complexities into imaginative possibilities and perhaps even realities. But every successive intervention makes the design of the whole—if there still is one—more intricate. If we began, long ago, walking on air, we will almost certainly discover that, much later, we are pressed to invent new and surprising high-wire acts time after time.

The most difficult planning problem for an institution is to decide what its visible architectural and natural universe should "look like." If there is to be an incarnation, one must first of all seek its character and meaning, and then try to express its significance in tangible shapes and forms that might possibly suffice.

Princeton was the first college or university to have had the term "campus" associated with it. And once the term was there, it began—inevitably—to impose itself on the college and to demand a response and definition. It obviously implied that Princeton would be a separate place with its own boundaries and distinct identity—rather than an institution whose buildings were interspersed with the town and its residential neighborhoods. It would be an enclave; but "campus"—literally a field—also indicated something more open (and different from) the closed, walled and protected place of (for instance) an Oxford college.

When we press further, however, we are still left to discover what might be meant when the words campus, college, and university are brought together in conjunction. Which images—of architecture, landscape, textures, space, and sky—would satisfy so hopeful a vision and ideal? Scott Fitzgerald's "dreaming towers"? Auden's "careless beauty" in "a green county"? Zuleika's "multitudinous quadrangles" that were "venerable, magical, and enduring"? Waugh's "unwearied sinews, sequestered mind" inhabiting an idyllic collegiate world designed for youth's "zest, generous affections, illusions, and despair"?

Once Nassau Hall—then the largest academic building in the colonies—had been placed parallel to the town's main thoroughfare, but rather set back—with a modest "campus" or field in front—then some hint of a design, certainly not a plan, was already in place. The fact that the new hall stretched itself longitudinally, suggested that Princeton's buildings might traverse its grounds in lengths and lines, as much as they would cluster in quads and cloisters.

Nassau Hall also seemed to declare that we would construct our buildings, not in colonial wood, but in variegated, home-grown, somewhat rusticated stone. We would be sturdy and impressive. We would invite perambulation. We would also care about landscape and space as much as about structures; indeed, the patterning and dynamics of their continuous interplay would, perhaps, matter most of all.

We know what happened afterward. The campus eventually became one of the most potent American images of what a college or university seeks to embody and express. It represents, of course, only one possible set of meanings among many, but it is a particularly powerful set, reaching back—as it does—to medieval gothic emblems of spiritual aspiration, intellectual intensity, and a sufficient separation from the world of affairs to create a cosmos with its own conceptions of time, labor, ease, and achievement.

If that image is now more complicated than it was—with an admixture of modern buildings and textures, new fields and modes of knowledge, and a greater range of activities and complex services—that is simply because our own lives, our world, and our realities have necessarily altered in so many ways. But to Princeton's credit and honor, its aspirations and convictions concerning the fundamental nature and purposes of a university have admitted no impediments or alterations at all.

Princeton has just completed the most comprehensive, rigorous, and successful planning process in its entire history. For those of us who were involved in such ventures 20 (and even 30 or 35) years ago, the current effort has (with no hint of invidiousness) adroitly ex-posed the cheerful amateurism of all our earlier youthful tinkering and fiddling.

Did we really once build Spelman Halls, a new indoor Olympic-size swimming pool, a molecular biology building, Wu Hall, and any number of other structures without much concern about anything except the "program," the architecture, the site, and the cost?

Blair Hall and Buyers Hall

Now, given the very substantial growth—over recent decades—of the population in the entire Princeton region, we know that the general lack of access roads, the traffic congestion, the pressure on community green space—and countless other considerations—can make any new construction (or analogous event) the trigger for an immediate chain reaction of innumerable problems and perplexities.

Shall we add a modest new wing to an equally modest academic building? But even the two or three dozen additional people in the new wing will need parking spaces—and the building will require electricity and heat (and air-conditioning) which will in turn strain the central steam plant slightly more. There will also be a slightly larger crowd in the lunchroom, the physical-fitness room, and the restroom. One can certainly manage for now—but later?

If we build, not a modest wing, but new high-intensity buildings for chemistry and neuroscience, with dozens and dozens more people, then there will be a far greater impact on the community, the campus, the energy supply, waste disposal, the ozone layer, the stream beds leading to Lake Carnegie, the storm-water catch basins, the shuttle service, parking lots, the cicadas, and the possible need for more traffic lights or pedestrian bridges on Washington Road. All these (and other) mundane items are—in effect—the atomic and sub-atomic particles that constitute the deep structure of our campus, and each has enough velocity and charge to affect even the least obvious of its neighbors, jostling and jolting them, unless we prove to be sufficiently astute in our planning to provide enough room for each, with comfortable cushions to serve as shock absorbers.

The trick in planning has been to pay the greatest possible attention to what we call our (and everyone else's) infrastructure, so that all the new outer structures and superstructures which the University may build in the future can shine forth in ways that enhance our sustaining vision of the campus and its meaning. Fortunately, the recent comprehensive process, led by President Tilghman and the University's exceptional consultants, has done precisely that. As a result, when the next round of buildings and pathways and plantings has been completed, everything will seem composed, enduring, and also animated by youth and zest once again. All our streams will continue to run brightly down their stream beds toward the brimful waters of Lake Carnegie, beneath all those dreaming—and also wakeful—towers.

Neil Rudenstine

Former provost and former chair of the
Trustee Committee on Grounds and Buildings

NEW CHALLENGES

The particular physical characteristics of the Princeton campus create unique challenges that distinguish this planning effort from those of other universities. The topography and ecology of the campus setting, its historic patterns of growth, and the evolution of the campus and community edge have created problematic conditions today that can either be exacerbated or repaired by new development. Each of these challenges is intensified by the increasing size of the functional area of the campus—the setting for the daily life of students, faculty, and staff.

CREATING A MORE WELCOMING CAMPUS

Princeton University receives more than 700,000 visitors each year. While Nassau Street is the University's traditional front, most visitors today arrive by car at what is clearly the back of campus, and find themselves in a distant and disorienting location with few directions. Once within the historic core, the intricate character that makes the campus beautiful also makes it confusing and difficult to navigate.

An unmarked and uninviting campus entrance at Lot 7 garage

CONNECTING THE WHOLE OF CAMPUS, FROM THE CORE TO THE EDGES

Although the historic core is highly walkable, more modern campus neighborhoods have fewer pathways and are more isolated from the center and from each other. Faculty in the E-Quad, for example, are disconnected from their colleagues in the natural sciences. To be truly pedestrian-oriented, the dense pathway network of the core must be extended across gaps and into outlying areas of campus.

A lack of campus character around Hoyt Lab

A paved and isolated "open space" in Jadwin Courtyard

INCREASING DENSITY WITHOUT LOSING OPEN SPACE

Princeton's "park-like" character is one of the most highly valued qualities of the campus by both the University community and the residents of the surrounding town. New buildings of increasing scale, parking garages, and infrastructure must be added while minimizing impacts on open space, natural features, and vistas of greenery.

The different architectural styles of Spelman Halls and Whitman College

UNIFYING DISPARATE CAMPUS AREAS

Over 250 years, campus neighborhoods have developed with widely varying styles of architecture, some of which lack coherent relationships between buildings. Recently completed buildings continue to express a wide range of architectural styles, a trend which will continue in the next ten years. This aesthetic diversity must nonetheless be integrated into a coherent whole.

Elm Drive stream erosion

GROWING SUSTAINABLY

The plan to concentrate growth in a limited space has significant environmental benefits, from the protection of surrounding open land to the reduction of driving between destinations on campus. At the same time, the local impacts of buildings on the natural features and underlying watersheds of campus are greater, and the ever-increasing energy demands of new buildings for the sciences and other uses make environmentally sustainable development a significant challenge.

Traffic backed up at a nexus of campus and community

ADDRESSING IMPACTS OF GROWTH AT THE EDGES

In the next ten years and beyond, campus growth will move increasingly to the edges of the campus, as this is the location of much of the remaining available campus land, and some of this growth will occur at points where the University meets the surrounding community. This means that the success of the plan will rely on a productive and sustained dialogue between campus and community.