36. PHYSICAL PLANNING AND DESIGN POLICIES: Voted to recommend to the Board of Trustees for adoption a statement of “Comprehensive Policies for the Physical Planning and Design of the Ithaca Campus of Cornell University.” The comprehensive policy statement, as developed by the Buildings and Properties Committee, is attached to these minutes as Appendix E.

Voted to express appreciation to the Buildings and Properties Committee and particularly to Chairman Will for this very thoughtful policy statement.

APPENDIX E

COMPREHENSIVE POLICIES
for the
PHYSICAL PLANNING AND DESIGN OF THE ITHACA CAMPUS
of
CORNELL UNIVERSITY

“How inspired was Ezra Cornell to choose his ragged hilltop farm for his University. A hundred thousand Cornellians keep close in memory their gorge-gashed campus, looking afar over lake and valley.”

Morris Bishop

INTRODUCTION

Ezra Cornell's inspiration bequeathed Cornell a campus unique among all universities. On behalf of generations yet to come it is the responsibility of the inheritors of that bequest to preserve its qualities of greatness yet uphold Cornell's fundamental tradition of innovative response to contemporary need.

The campus, sometimes defined as “a beautiful site partly roofed,” is a physical setting of landscaped grounds, buildings, and circulation networks which together create an environment affecting all who visit, teach, study, work, and play within it. The Board of Trustees reaffirms its conviction that the quality of that environment is vital to the primary purposes of the University and that its excellence is a central concern of all who share responsibility for its development. To guide and discipline that development, the Board adopts these principles of planning and design.
To the extent that the Board of Trustees has authority or influence, this action applies to the statutory as well as the endowed campus.

A. CAMPUS DESIGN

1. Outdoor Space

More important than the design of buildings, the design of outdoor spaces, their organization and quality, is a conscious act and a disciplined art, the supreme challenge of campus design.

Only rarely does the symbol of importance of a building justify its siting and design as a monument, free standing, focal, and symmetrical. In the context of total campus design, buildings are the principal element which enclose and shape outdoor space. The space so designed can be thought of as a series of outdoor rooms, some focal, some tributary, each sequentially related to others, each with its own scale, texture, and territorial identity, and each with the potential for enriching the experience of those who pass through, places of entrance, of gathering and interaction, places of solitude and intimacy, places of awe and sequences of contrast, surprise, and delight. Such is the stuff of which the human environment, its identifications, its memories are built. Of such is Cornell perceived as a place of being.

2. Vistas

From the earliest days of the University and to student and visitor alike, memorable features of the campus have been the long views: across the valley to the west, up the Lake, and down the valley to the southwest. Though modified by the growth of trees and the erection of buildings, both on and off University property, there are still opportunities to recapture and enhance these vistas. Buildings should be sited and designed to preserve and take advantage of these remarkable views for both the pedestrian and the building occupant. Especially critical is the western edge of the endowed campus plateau from Fall Creek to Cascadilla.

3. Landscape Design

Trees, ornamental plantings, lawns, pavings, light standards, kiosks, shelters, outdoor furniture, and freestanding sculpture are all elements of
comprehensive landscape design and as vital to environmental quality as buildings. Landscaping is more than pleasant outdoor decoration. Like buildings well conceived landscaping also contains and proportions space. As in a room it provides the ceiling overhead and the carpet on the floor. It furnishes. It enriches to touch, sound, and smell as well as sight. It guides movement. It is the final essential of the complete campus.

The project budget for every new building should include funds for landscaping adequate in amount and as inviolate as any other budget item. Beyond common design considerations and their ecological and environmental consequences, special attention should be given to the impact of Ithaca's severe climate, the abrasion of increasingly heavy human use and abuse, and design for mechanized maintenance requiring minimum hours of labor.

4. **Outdoor Lighting**

A university lives twenty-four hours a day. In consequence, night lighting of buildings and grounds is not an afterthought. It is as integral a contributor to campus life as the buildings, landscaping, and people, which it causes to be visible for half the average day. Appearance is important by night as well as by day and should be so regarded by designers. Nor is there necessary conflict between security requirements and aesthetic delight. Even though this country's first electric lighting of public outdoor space was developed and installed at Cornell, this is an underappreciated and underdeveloped aspect of environmental design and is deserving of more creative attention than it receives. A comprehensive plan for outdoor lighting is needed and yet to be developed.

5. **Circulation**

Despite the centrifugal forces generated by a growing institution, Cornell clings to the concept of the campus as a pedestrian enclave. This looks toward the reduction of vehicular traffic in the central part of the campus and the further development of pedestrian walks and malls. Compatible with the requirements of safety and of servicing buildings the planned system of circumferential roads and peripheral parking facilities should be extended. Looking to the future, adoption of new modes of people transportation is quite possible and may supplement the present intra-campus shuttle bus system. Considering the Ithaca climate, all-weather interconnections between buildings cannot be wholly discounted as a desirable possibility.
6. Vertical Development

To preserve a compact walking campus if a policy of growth is continued, increased density is inevitable. There will be more persons per acre and consequent pressure to cover more land with buildings. To keep open space it follows that only rarely can we enjoy the luxury of low and generously spread construction. The potentials of the vertical, down as well as up, must be explored and exploited.

The utmost care must be devoted, of course, to the design and location of medium and high—rise structures in relation to both adjacent buildings and open space. The total campus design will be a continuing concern both as perceived from the campus itself and as the profile is viewed from the town below and from the hills to the west and south. Respect for the oldest buildings surrounding the Arts Quadrangle suggests that, unlike city centers where the tallest buildings rise at the center, the Cornell profile should be low in the center and rise at the edges, framing yet not competing with those buildings designated as of most historic and architectural significance.

To meet the need for centrally located facilities the potential for underground construction, where rock formation, soil conditions, and drainage permit, should be fully explored, measured, and inventoried. The slopes, plateaus, and sharp breaks in grade of the campus offer opportunities for the capture of useful square feet. Sensitively designed such construction need not detract from but, in fact, can enhance the environmental quality of the central area. Herein may lie the key to the preservation of compactness and convenient walking distances.

7. Temporary Quarters

Characterized by innovative response to the society it serves, Cornell is in constant need of quarters to house new or experimental programs through their period of probation or temporary facilities for expanding old programs until a permanent home can be allocated. This need suggests the value of “surge” buildings of permanent construction but for temporary use.
B. BUILDING DESIGN

1. General

The buildings of the Ithaca campus have been built over a span exceeding one hundred years. Each represents something of the economy, technology, social values, and aesthetic philosophy of the time that produced it. In this sense each building was modern in its time and, in some instances, an example of the best architectural thought of its period. Still today each new building should reflect the spirit of Cornell as a pioneering institution and should also be of its time and place. This is tradition in its truest meaning.

Cornell asks that each new building not only solve special functional requirements but contribute respectfully to a coherent whole and, of itself, be an aesthetic statement of lasting significance. For the planning of its campus and the design of its buildings, Cornell seeks and is entitled to retain the services of the ablest professionals most appropriate to the task and from wherever they may be found.

2. Systems Concept

Cursory examination of any campus history shows that, during the life of academic buildings, frequent change in use is the rule rather than the exception. In older buildings at Cornell, and even in newer ones, few spaces remain in the use for which they were originally programmed, designed and built; most have been remodelled many times. Space tailored specifically to the whims of individuals becomes obsolete. New programs, new methods, and new people require repeated alterations and adaptations usually adding up to greater cost than that of the original construction. New goals, new techniques of teaching, and new research technology require new kinds of space. The rate of change is accelerating and, with even the most careful study, the specifics of need cannot be predicted for even a few years ahead. It is declared University policy, therefore, that new academic buildings and alterations be designed for rapid adaptation to change at minimum cost and least disruption.

The systems approach consequent to such a design policy is exemplified in principle, but not architectural character, by the office buildings, department stores, factories, and laboratories of the commercial world, where the extension
of useful economic life has long been a basic design criterion. Recognizing that functional convenience will often compromise the pure application of a systems policy, some implications for academic buildings are:

(a) Only for compelling educational needs should the personal and unique requirements of the first user take precedence over the flexibility required to extend the useful life of the space for the tenants who will follow. A building belongs to the whole university and is rarely the permanent preserve of any single individual, discipline, or academic division.

(b) Buildings in toto or in discrete articulated segments (i.e., wings) should be programmed as functional types, viz.: classroom buildings, lecture centers, office buildings, wet laboratory buildings, etc. Consistent in structure and mechanical systems, such buildings or segments are more economical to build and operate and more flexible in space assignment than the heretofore usual university building, which houses within a single expensively complex structure all the functions, offices, classrooms, lecture halls, laboratories, etc., associated with a discipline, department, school, or college.

Caveat: The application of this principle must be carefully balanced with functional academic convenience and the need to promote the association and interaction of teachers and students.

(c) Each of a building's sub-systems, the heating, lighting, power distribution, partitions, fenestration, ceilings, and floor structure should encourage rather than inhibit adaptation to changing use and space allocation.

(d) The concept of committed vs. uncommitted space should be understood and exploited for maximum flexibility. Committed
spaces are those which by their nature remain as permanent functions, i.e., stairs, toilets, elevators, utility shafts, sloped floor auditoriums, etc. Corresponding in principle to rental space in a commercial office building, the uncommitted space is that which may be freely subdivided and redivided over time in response to the requirements of each new or continuing tenant. The concept requires the compact planning and careful location of committed space to permit maximum freedom of arrangement of that which is uncommitted.

Caveat: Certain spaces, such as public lobbies and similar introductory spaces, for aesthetic distinction or behavioral purposes may be worthy of special design treatment and consequently may be regarded as committed space.

While the foregoing policy, in some instances, may increase initial capital cost, the annual savings to the University will be substantial and the benefit to academic innovation and vitality immeasurable.

3. Quality of Materials and Equipment

Long after the original capital investment has been written off by gift or by amortization, the expense of operation and maintenance continues year after year throughout a building's useful life. Necessary but unrewarding, these costs are major in the University budget. Design for easy cleaning and the careful selection of high quality finish materials and efficient mechanical equipment for low cost operation and maintenance will quickly amortize the added capital investment. Rather than initial price the criterion of choice should be the University's annual cost of ownership.

4. Architectural Barriers and Hazards

Because of its terrain and climate, Cornell is inherently unsuited to and attracts few handicapped students so that special provisions for the physically handicapped are considered not generally required. Architectural barriers, however, should be avoided especially in academic buildings and places of public assembly. Committed to human safety, Cornell has developed and requires adherence to its own standards of protection from fire and other hazards.
5. **Comfort Air-Conditioning**

Supported by behavioral research, business and industry have long since decided that human performance is sharply affected by the physical conditions of the workplace: light, sound, temperature, humidity, air movement and absence of pollutants. Particularly for the sedentary worker, air-conditioning is no longer a luxury but as basic a need as heating. As the summer use of university facilities increases so will the acceptance of cooling and dehumidification as fundamental necessities of the working environment for students, faculty, staff and administration. It is, therefore, University policy that as a general rule new construction for offices, classrooms, laboratories, and places of assembly include air-conditioning or, at the very least, a ventilation system which provides for its later incorporation.

C. **UTILITIES**

I. **Distribution**

Related to the arteries of surface movement are the ganglia of sub-surface utilities. These should be so located, channelized, and concentrated as to achieve economy yet permit maximum flexibility in the location and expansion of buildings. Consideration should be given to the use of utility tunnels for easy maintenance and change. Recognizing that systems of people movement and utilities are each designed to inter-connect the same places, thought should also be given to the planning of an integrated “corridor” system for maximum convenience and minimum consumption of precious land.

D. **LAND USE**

A land use plan is now maintained for the entire campus and environs. Never finished and always in evolution a Land Use Plan is a living document under continuing study in anticipation of needs as they become foreseeable.

The plan zones by function. Functional categories include housing, recreation and sports, common facilities, and such academic areas identified as, for example, Biological Sciences, Social Sciences, Humanities, Creative Arts, or Animal Sciences. in allocating space consideration is given to the natural clustering process which has developed over the years, functional inter-relationships, student and faculty interaction, the possibility of expansion, traffic generation, utility requirements, topography and ecology.
As a general principle, those functions which generate intense use by students and faculty should be centrally located. Thus academic areas are concentrated between the gorges with housing and related recreation outside. Those functions which involve the fewest persons and especially those attracting the heaviest vehicular traffic should be peripheral.

E. RECREATION AND SPORTS AREAS

The need for open areas for sports, both formal and informal, and for passive recreation continues and will increase in proportion to growth in the number of students. The type and preferred location of such areas may change in response to other campus development and changes in the composition of the student population. Cornell's emphasis on informal play and intra-mural sports, however, is expected to continue and increase. The areas required are large and the purposes served are important to the life of the community. Consequently, they deserve high planning priority.

F. PRESERVATION

1. Designated Areas

From its beginning the main campus has been marked by a spaciousness considered one of its most distinctive and distinguished characteristics. As the physical development of the campus responds to the requirements of educational programs, as it must, some areas now open will inevitably become building sites. For historically justified sentiment and for inherent beauty and rightness, it is University policy that the following special areas remain open and undiminished. The Arts Quadrangle, the gorges and the tops of the banks flanking them, the Library Slope, and the surface and banks of Beebe Lake. By Trustee action other areas may be added from time to time to this protected category.

Important for teaching, research, and passive recreation, the Cornell Plantations are presumed to remain open. Only high priority need will make it necessary to reconsider some close-in areas for other use.

2. Designated Buildings

While recognizing that a continuous process of growth and replacement is essential in any healthy organism, and that buildings as they become obsolete must be remodelled or replaced by new, the University must be especially
aware of the historic and architectural heritage which has been passed down from its earliest years. Every effort should be made to preserve those buildings deemed to have special architectural merit or historic significance. Sage Chapel, the White Mansion, the Uris Library and Tower, and the three oldest buildings which now form the west side of the Arts Quadrangle are so recognized. The exteriors of Morrill, White and McGraw should be preserved although interior remodeling is required for utility and safety.

From time to time the Board of Trustees may designate other buildings as worthy of preservation.

G. SIGNAGE AND GRAPHICS

As institutions grow in size and complexity, the need becomes more compelling for a consistent system of signage and graphics for directions and information both outdoors and in. From highways to buildings to rooms people must be directed and their conduct guided for their own convenience and safety. Though seemingly a minor detail such a system is functionally important, costly, and has a significant visual impact especially on visitors new to the campus. In recent years, signage has joined graphics as a highly developed art deserving of the University's careful attention. Cornell does not now have and needs such a comprehensive system.

H. FINE ARTS

As a responsible cultural institution, Cornell encourages the incorporation of appropriate works of art in buildings and on the grounds. Sculpture out-of-doors and paintings and sculpture within buildings establishes a climate which builds itself into student consciousness and is remembered after many things, considered more "practical," are long forgotten. Project budgets should carry an allowance adequate to provide works of art for buildings and, when appropriate, for the site.

J. ENVIRONS OF THE UNIVERSITY

The University is not a walled enclave. Mutually dependent, the town, country and University share the same general environment. It is, therefore, the policy of Cornell to encourage and support, in any way reasonably open to it,
a high standard of design and environmental qualify outside as well as within its own borders. To this end the University will continue to cooperate with all concerned and appropriate public and private agencies.

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